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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1997

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RINGS

BEFORE A

SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

RALPH REGULA, Ohio, *Chairman*

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JIM KOLBE, Arizona
JOE SKEEN, New Mexico
BARBARA F. VUCANOVICH, Nevada
CHARLES H. TAYLOR. North Carolina
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NOTE: Under Committee Rules, Mr. Livingston, as Chairman of the Full Committee, and Mr. Obey, as Ranking Minority Member of the Full Committee, are authorized to sit as Members of all Subcommittees.

DEBORAH WEATHERLY, LORETTA BEAUMONT, JOEL KAPLAN, and CHRISTOPHER TOPIK,
Staff Assistants

PART 8

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1997

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1997

WEDNESDAY, APRIL 24, 1996.

BUREAU OF LAND MANAGEMENT

WITNESSES

MICHAEL P. DOMBECK, ACTING DIRECTOR, BUREAU OF LAND MANAGEMENT
NANCY HAYES, CHIEF OF STAFF
NINA HATFIELD, ASSISTANT DIRECTOR, BUSINESS AND FISCAL SERVICES
ROBERT P. HENRY, ACTING BUDGET OFFICER
MARILYN JOHNSON, ACTING DEPUTY DIRECTOR
GWEN MASON, ASSISTANT DIRECTOR, EXTERNAL AFFAIRS
MAITLAND SHARPE, ASSISTANT DIRECTOR, RESOURCE ASSESSMENT AND PLANNING
W. HORD TIPTON, ASSISTANT DIRECTOR, RESOURCE USE AND PROTECTION
JOHN D. TREZISE, CHIEF, DIVISION OF BUDGET AND PROGRAM REVIEW, OFFICE OF BUDGET, DEPARTMENT OF THE INTERIOR

INTRODUCTIONS

Mr. REGULA. The committee will reconvene.

We're pleased to welcome you, Mr. Dombeck and Mr. Henry. Your statements will be made a part of the record and you may summarize as you choose.

OPENING STATEMENT

Mr. DOMBECK. Well, thank you, Mr. Chairman. I'm pleased to be here today.

With a budget request for next year that is less than last year's, we're challenged to find ways to accomplish our mission as efficiently and effectively as possible. Our mission is to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations. BLM manages 41 percent of this Nation's Federal lands for the American people. They provide economic, recreational and other benefits. Our activities will generate $1.3 billion in 1997 from mineral leases, grazing fees and other sources. And these benefits, these collections, go to a wide variety of sources. For example, States get about 40 percent of these monies for education, roads, and other municipal activities. About 34 percent of the $1.3 billion goes into the Reclamation Fund, about 18 percent into the General Fund of the U.S. Treasury, and the smallest, about 6 percent, will come back to BLM.

The public lands will provide recreational opportunities for an estimated 66 million visitors in 1997 and their activities will contribute an indirect economic value of $3.3 billion. The public lands also hold a wealth of information that teaches us about our rich history and pre-history. The cultural resources are phenomenal and they are critical both for natural and economic values in the social communities of the American West, Alaska, and all of the public lands.

WORKING SMARTER

We're working hard to work smarter. To help assure that appropriated funds are used efficiently, we are working hard to minimize overhead. For example, between 1995 and 1997 we will reduce our office rental costs by an estimated $2.5 million. To target funds where they are needed most, we are moving more of our dollars and people into direct eye contact with the public we serve. Since 1994, we have reduced the Washington office staffing from 515 to 340 employees. To multiply the dollars available to us, we are working with other Federal agencies, partner groups and individuals in challenge cost-share projects and other coordinated responses to meet a variety of needs.

For example, we have invested about $2.5 million in a Lake Havasu fisheries improvement recreation program while our partners have provided $6.5 million in matching funds.

Mr. REGULA. Which partners?

Mr. DOMBECK. Anglers United of Arizona, the National Fish and Wildlife Foundation, Arizona Department of Fish and Game, the Bureau of Reclamation, the U. S. Fish and Wildlife Service, a variety of matching funds in local interests.

Mr. REGULA. But you manage it?

Mr. DOMBECK. Yes.

PILOT FEE PROGRAM

Mr. REGULA. But they help you pay a part of the costs, a substantial part?

Mr. DOMBECK. Yes, that's correct.

Mr. REGULA. Are there any fees from the public who use this?

Mr. DOMBECK. Yes, there are fees and we hope that the pilot fee program that we're working with you on is successful and provides an incentive to plow fees back into the areas where they came from.

Mr. REGULA. Thus far you're optimistic about the program?

Mr. DOMBECK. We're very optimistic and we hope, as when we visited a couple of weeks ago, that we can work with you to make sure that we have a streamlined process and make sure that the accounting system is such that it's workable and simple. One of the differences that we have is that if you have a Yellowstone National Park, for example, you have people coming through one area in a fairly trackable system. In BLM we have lots of small campgrounds in areas that are spread out where we might have a situation where there are 15 campsites in one area, so we need a simple way to track that and we'll be working with your staff on that. So we look forward to continuing to work with you on that effort.

It's interesting when we talk to people; it seems like we know that no one wants to pay more, but when you ask them, do they want to pay more for recreation fees, if they know that the money is going to come back to the area that they enjoy, then they'll say yes. And it also offers an opportunity for our employees to be more innovative and more competitive and we really look forward to that as a way to help take some of the pressure off the Federal deficit and yet maintain quality facilities for the American public.

Mr. REGULA. Well, I'm glad to hear that because I've always been a long-time advocate of fees.

Go ahead.

OPENING STATEMENT CONTINUED

Mr. DOMBECK. One other point on the recreation program is, nationwide, volunteers contribute about $6 million worth of capability annually and that amounts to about 23 percent of our on-the-ground capability. In fact, the Lake Havasu project that we just talked about has a large volunteer component associated with it.

We have many priorities. The budget proposes an increase of $15.6 million for the continued implementation of the President's Pacific Northwest Forest Plan. The Forest Plan is assuring that there are sustained and predictable timber harvests, while at the same time assuring appropriate environmental safeguards. An additional $12 million is requested for the protection of land and resources, including increased efforts to control invasive plant species that are invading the public lands at a rate of about 2,300 acres per day; wildlife and fish habitat improvement projects; implementation of range improvement strategies; slowing of the growth of the wild horse and burro population; increased prescribed burns to reduce the impacts of wild fires; and mitigation of abandoned mine land impacts on watersheds. A $12 million increase is requested for the wildland fire activities of BLM, the Park Service, the Fish and Wildlife Service, and the Bureau of Indian Affairs. An additional $10.5 million is requested for priority clean-up of hazardous materials sites on lands managed by BLM, the Park Service and the Fish and Wildlife Service.

Our budget also proposes decreases, including a reduction of $8.8 million for the Automated Land and Minerals Records System. At the same time, I'm very happy to tell you that we will deploy that very critical system in the next Fiscal Year. But as we all know, the budget outlook is sobering and we will face many difficult choices, not only for the next Fiscal Year, but for years to come. And we really look forward to your continued support of the Bureau of Land Management and the legacy that we are responsible for with the American people.

Mr. Chairman, and Congressman Skaggs, I'd like to introduce some of my staff who can deal with some of the technical questions: Nancy Hayes is Chief of Staff and counselor; Marilyn Johnson, Acting Deputy Director; Gwen Mason, External Affairs; Maitland Sharpe, Planning and Assessment, and Hord Tipton, Resource Protection. And we'd be happy to discuss any of the issues with you this afternoon and tell you about our programs.

[The statement of Mr. Dombeck follows:]

MICHAEL P. DOMBECK
Acting Director, Bureau of Land Management
Department of the Interior

before the
United States House of Representatives
Committee on Appropriations
Subcommittee on Interior and Related Agencies

April 24, 1996

Mr. Chairman, members of the Committee, thank you for inviting me to testify before your subcommittee on the Bureau of Land Management's proposed budget for FY 1997.

This year, the BLM is celebrating its fiftieth anniversary. Our mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. These lands -- 41% of the lands in Federal ownership -- provide economic, recreational, and other benefits to all Americans.

This year's budget request of $1.1 billion is an increase of $45 million over FY 1996. Significantly, the request is slightly less than the amount actually appropriated in FY 1995, which means that in terms of real capability the Bureau is challenged to find ways to accomplish our mission as efficiently and as effectively as possible. While modest increases are proposed for several programs, we have worked hard to balance those with offsetting decreases in other program areas.

The facts show that funds appropriated for the management of the public lands are a good investment in many ways. Largely from the efforts of the Bureau, roughly $1.3 billion will be collected in 1997 from mineral leases, timber sales, recreation fees, grazing fees, and fees for services provided by BLM. The coal leasing program, for example, generates over $300 million in royalties annually on an annual budget of less than $7 million.

All Americans are the beneficiaries of our income-producing activities. The $1.3 billion dollars generated from public lands will be distributed to States (42%), the Reclamation Fund (34%), the general fund of the Treasury (18%), and a small portion (6%) will come back to the BLM for continued activities such as recordation of mining claims, the expenses of adopting out wild horses and burros, forest health initiatives, and providing copies of documents to the public.

It is more difficult to place an economic value on other public land resources. The public lands provide recreational opportunities for an estimated 66 million visitors each year, for such diverse activities as hunting, fishing, camping, day-hiking, mountain biking, sightseeing, rockhounding, photography. Yet even these activities contribute an indirect economic value to regional, state, and local economies in the form of tourism business, employment, and sales taxes. From recreational uses of the public lands, we estimate an economic impact of about 3.3 billion annually. The public lands also hold a wealth of information that teaches us about our history and pre-history. They are a critical part of both the natural and economic world in which we live.

Nonetheless, we are keenly aware that budgets need to be tightly managed and we are 'working smarter' to make sure that the funds appropriated by this committee and the Congress are wisely and efficiently used, to target them where they are most needed, and in many cases to multiply them through partnerships and cost-sharing initiatives with State and local governments, other Federal agencies, partner groups, and individuals. I'd like to mention a few examples to illustrate how we are doing this.

To help assure that appropriated funds are used efficiently, we are working hard to minimize our "overhead" costs. Between 1995 and 1997, we will reduce our office space rental costs by an estimated $2.5 million. Simplification of our budget structure, accomplished with the approval of this committee, is saving us an estimated $4 million each year. This change has helped us to redirect resources management expertise into on-the-ground accomplishments and away from detailed budget tracking.

To target funds where they are most needed, we are reducing management layers and moving more of our dollars and people closer to the ground and closer to eye-to-eye contact with the public we serve. Since 1994, we have reduced the Washington Office staffing from 515 to 340. In 1993, less than 67% of BLM expenditures were directly related to 'operational field work'. We have increased that to 70%, and our goal is 80%.

To multiply the dollars available to us, we have sought the help of other Federal agencies, partner groups, and individuals. For example, the challenge cost share projects that we undertake to improve fish and wildlife habitat produce results of two to five times the investment of Federal dollars. In one specific case, the Lake Havasu Fisheries Improvement Program, we have invested $2.5 million in the largest and most comprehensive warm water fisheries project ever undertaken in this country. Our partners have provided more than $6.5 million in matching funds. And in a final note on that project, it is expected to generate an economic return to the local economy of $3.5 million annually.

Individuals are partners too. In our recreation program, for example, volunteers are contributing about $6 million annually, which adds about one-fourth to the appropriation for recreation management.

Still, there are many priorities. The President's budget requests several relatively modest increases. These are partially offset by reductions where we have been able to identify them without adversely affecting the health of the land, or without jeopardizing the income stream that is so important to the bottom line of the Federal budget.

The Budget proposes an increase of $ 15.6 million for implementation of the President's Pacific Northwest Forest Plan. This includes $ 7.4 million for activities that will assure a sustainable timber harvest of 1.1 billion board feet (of which about 211 MMBF will come from BLM lands) while still assuring rigorous environmental safeguards. An additional $ 8.2 million over the 1996 conference level is requested for the Jobs-in-the-Woods program, which has the dual objectives of providing employment opportunities for displaced timber workers while at the same time accomplishing restoration projects that will benefit the environment and the long-term economic health of the region.

An additional $12 million is requested for several activities that have as their common objective the protection of the land resources. This includes funding for increased efforts to control invasive species that have adverse environmental and economic impacts, for wildlife and fisheries habitat improvements, for implementation of rangeland improvement strategies, for slowing the growth of wild horse and burro populations, for increased prescribed burns to reduce the impacts of wildfires, and for mitigation of abandoned mine land impacts on watersheds.

Other increases are in two accounts for which appropriations are made to BLM but which include funding for other Interior bureaus. An additional $12 million is requested for wildland fire activities of BLM, the Park Service, Fish and Wildlife Service, and BIA. An additional $10.5 million is requested for priority clean-up of hazardous materials sites on lands managed by BLM, the Park Service, and the Fish and Wildlife Service.

Our proposed budget also includes decreases. Most notably, our request for the Automated Land and Minerals Records System is $8.8 million below the 1996 conference level. This reflects the fact that most of the equipment for that system has been deployed. I am very happy to tell this Committee that in 1997 we will deploy that very crucial system.

Finally, Mr. Chairman, I would like to talk about some of our successes. The BLM is an agency that has accomplished much. And much of what we have done reflects concerns that this Committee shares about the future of the public lands and how they are managed.

> We have developed, with the Forest Service and other agencies, an interagency fire policy that addresses many of the concerns we have had about the fire program, as well as those concerns that this Committee expressed in its report on our appropriations bill last summer.
>
> In a variety of other projects -- large and small -- we are coordinating with other Federal agencies, the States, the counties, local governments, and private individuals to assure that the public benefits from a coordinated effort and that the lands are improved by our efforts, since the condition of the land does not respect administrative boundaries.
>
> We are aggressively seeking efficiencies and strategies to deal with tightening budgets, and the absorption of pay and cost increases in 1996 as directed by the Committee.
>
> We are emphasizing land exchanges to find common sense solutions to management problems.

Still, the budget outlook is sobering As the Congress and the Administration work toward a balanced budget, we know that there will be great pressures on all of us to find better ways of accomplishing our mission And we will face difficult choices of what not to do But if the budget continues to fall, we will have to make those choices We are taking a hard look at our operations now, and I believe the actions we have taken or are taking will serve the public and the land well We look forward to your continued support as we continue to take care of our legacy

Mr Chairman, that concludes my opening statement and I welcome your questions

BLM INCOME

Mr. REGULA. You mentioned your income. Does this offset your expenses? I see you have $1.3 billion in revenue and your expenses are about $1.2 billion; is that accurate?

Mr. DOMBECK. That's about right, yes.

Mr. REGULA. So, in a sense, as far as the Treasury is concerned, you're self-sustaining.

Mr. DOMBECK. That's correct, and we're proud of the fact that we're one of the few agencies in Government—Minerals Management Service, the IRS, and one other one, I'm not sure which it is that is also an agency that produces more in receipts than——

Mr. REGULA. I would say the IRS has some advantages over you. [Laughter.]

The plus side is you're not as disliked as they are.

Mr. DOMBECK. In most places. [Laughter.]

RECREATION FEES

Mr. REGULA. In most places, right. I'm glad you qualified it. I've heard rumors—being an Easterner I wouldn't be aware of that.

The House report directed that the Secretary develop a pilot plan for joint Federal-State management for one or more selected BLM Resource Areas for affected States or counties. While I recognize that this bill has not yet become law, have you in fact started responding to this directive and what, if anything, has been done, and what is your overall view of this concept?

Mr. DOMBECK. Well, I think the pilot plans are a wonderful way to go. In fact, the way that I see resource management going in the future, as we try to balance the Nation's checkbook, is more cooperation with not only State agencies, but local entities. I think resource managers of the future will be coordinators, facilitators, cooperators, and what we've got to do to meet the mandates we have—and we know we're not going to grow in size, at least in the near term—is to be able to pull people together every place that we can to generate support. I've got a variety of examples that we'll talk about, hopefully throughout the course of this hearing.

And Bob, tell me the specific programs that we're working on with the States. For example, the Western States' land commissioners: we've signed a memorandum of understanding with the land commissioners to move forward with land exchanges with the States to help the States consolidate their lands and our lands to make more sense out of the land patterns of this country, not only to minimize costs, but to maximize revenues and services that we provide.

LAND EXCHANGE

Mr. REGULA. Do you have plenty of statutory authority to make swaps and reconfigure your lands?

Mr. DOMBECK. Yes, we do. As a matter of fact we are, in order to save money, doing a variety of things to streamline our capabilities. We just recently streamlined our Federal Land Exchange program and the FLEFA regulations. We're now experiencing a much lower failure rate in land exchanges than we did in the past. The appraisal processes are streamlined, the evaluation processes are streamlined and our objective is to have a very high success rate where we spend money in land exchanges.

Mr. REGULA. Can you do land exchanges with the private sector, if there's a rancher who wants to make a swap with you that fits with both his and your needs?

Mr. DOMBECK. Yes. One of the authorities that BLM has that I believe no other Federal agency has—one of the carryovers of the General Land Office responsibility—is that BLM is basically the realtor for the United States of America. We enter into a variety of approaches to land exchanges with private individuals and with States. In fact, I had the pleasure of participating in a wonderful event in New Mexico just about a month ago with the Santa Ana pueblo, where we turned over 15,000 acres to that pueblo. It was a three-way exchange with the State where we acquired some State lands that were within wild and scenic river areas as well as in wilderness study areas, and then the State got some BLM lands. And, fortunately, we were able to reconfigure things to everybody's benefit.

RECREATION

Mr. REGULA. Well, that sounds good. Obviously, you mentioned in your opening statement that you had 66 million visitors. Are those visitor days or are they 66 million different people?

Mr. DOMBECK. Tell us, Bob, what are the——

Mr. HENRY. People.

Mr. REGULA. Sixty-six million. So you have many more visitor days, because I'm assuming some of them will stay two or three days for a camping experience or hunting. I'm a big fan of multiple use because I think it opens opportunities to the public for a variety of activities.

Mr. DOMBECK. We really feel good about where we're going in recreation. In fact, I'm one that believes the long-term future of the BLM is—you know in the past we were linked to purely the extractive industries. We need to continue to move forward in that area and we are, but we also, as demographics change, carving out a niche in recreation different than that of the Park Service. We're aware of the Park Service—the parks are being loved to death: I think of the Japanese flying to see Yosemite and the Europeans flying to the Smokies. The BLM lands provide the playground of the small, local communities. The people from Elk Hole that go hunting probably go on BLM lands. The people that can't afford to buy airplane tickets to fly across the country. I really think it's an important niche for local communities and individuals—it's sort of the playground of the West, in a sense. Although we do have lots of eastern visitors, if one would think of it in concept of what niche do we fill as opposed to some other agencies, I really think our niche is in providing the small local communities with access.

Mr. REGULA. What about hunting activities for the Easterners?

Mr. DOMBECK. Lots of hunting.

Mr. REGULA. Because hunting lands are getting scarce in the urbanized areas.

Mr. DOMBECK. We've got about 170,000 miles of fishable streams, about 4 million acres of flat water, lots of good hunting opportunities.

Mr. REGULA. Do you provide primitive campsites as part of your program?

Mr. DOMBECK. There's a whole variety, the whole spectrum of opportunities for BLM, from campgrounds to dispersed recreation and other places out in the back country. In Mrs. Vucanovich's State where some of the biggest mule deer in the country are, people just go and spend two weeks hunting; hopefully, it doesn't take them that long to bag their quarry if that's what they're after. But there's the whole variety of places. We've got about 2,300 day-use units and about 1,600 family units on about 50,000 acres in BLM.

Mr. REGULA. Now, the State game laws apply as far as the operations, is that correct?

Mr. DOMBECK. That's correct.

Mr. REGULA. And they, therefore, have their personnel on the lands—rangers and so on to enforce the State game laws?

Mr. DOMBECK. That's correct. We are not the wildlife manager, although we coordinate very closely with the States to manage habitat appropriately. In fact, last week I had the wonderful opportunity to be part of a signing ceremony in the State of Arizona in Mojave County at Black Mountain. What we had are conflicts between livestock grazing, big game, and wild horses and burros. This was one of these local partnerships that bubbled up where our employees were the facilitators. We had the Mojave County Sportsmen's Association, the local cattlemen's association, Arizona Game and Fish, Audubon Society and Sierra Club, and they arrived at an agreement on to how to resolve some of these issues without having to go to court. It's just wonderful to see these kinds of things happen because I think it demonstrates the power of local partnerships in resolving issues.

Mr. REGULA. Mr. Skaggs.

Mr. SKAGGS. My question is why are we having an adjournment at this time [referring to the bells ringing]?

Mr. REGULA. I think it must be recess.

Mr. SKAGGS. I was afraid it was going to be two bells and we were going to have to be cut short, but instead we have all the time in the world. [Laughter.]

AGENCY COORDINATION

First, I just want to give a copy of a letter I gave to the Secretary this morning. I don't expect you to comment on it but it has to do—I talked to you about it on the phone—with taking care of management of some of your property in Colorado. I've been working over the last several years with Fish and Wildlife on their stepped-up efforts in Colorado, in particular, and now to be expanded throughout the region, on cracking down on errant oil and gas drillers and the threat particularly to migratory birds, and some of the mining operations that have had leach ponds that weren't properly protected. I assume that you have close coordination with Fish and Wildlife when leases on BLM land are implicated in any of these activities, but I just wanted to ask about that.

Mr. DOMBECK. Yes, we coordinate very closely. As a matter of fact, this is another area where in many cases we're streamlining the process. For example, if an ESA consultation is required for a salvage timber sale. We work with the Forest Service, the Fish and

Wildlife Service, and of course, if salmon are involved, the National Marine Fisheries Service. In these cases, we've basically moved from a serial process to a parallel process. By doing that we get the regulator up front with us right at the beginning. The old system sort of was that an oil and gas producer, or whatever the proponent of the project would be, would come to BLM and they'd say we want to do this, and we'd begin to write it up, gather the data, and when the data is gathered we'd hand it to the regulator—say the Fish and Wildlife Service—and ask for a consultation. They might say it's okay, they might say come on back, get some more data, and then come on back, or they might say no, and they rarely say no.

What we've done now is, and it's not as time-consuming, especially if we've got the same information going back and forth or requests going back and forth; it's sort of like the concept of build it right the first time. We involve the regulator right up front so that everybody knows the rules right up front. I think it allows us to be much more responsive to industry and at least they get an answer in a reasonable amount of time. That's our goal in doing that.

Another area where we hope to make some progress is we're asking for an additional $4 million in abandoned mine land monies and this is for remediation, collecting data, and with regard to storm water runoff. What we hope to accomplish in this arena is to really deal with problems before they become big problems from the standpoint of protecting fish and wildlife habitats, clean water, those kinds of things. So there are a variety of ways that we're making progress in that area, but as always, when funds are short, there's a lot more to do than we have money or people to handle it.

RESOURCE ADVISORY COUNCILS

Mr. SKAGGS. I wanted to give you an opportunity to report on progress with Resource Advisory Councils and the rangeland reform activities in Colorado—how are we doing on that?

Mr. DOMBECK. Well, we're very pleased with the way things are going. I was at the New Mexico Resource Advisory Council last week. I've been to maybe about one-third of the 24 councils; in fact, I'm going to Colorado the third week in May to participate in a Front Range advisory council. What we really see is people coming together, wanting to work things out locally. It's a process of trying to make decisions closer to the land and involve local communities.

I can give you an example in your State, Mrs. Vucanovich. I had a phone call from one of the members of the RAC meeting, and I was at the Reno RAC meeting, and they said to me, "Do you know for the first time both the environmentalists and the ranchers are talking about range land health." Another anecdote that I heard last week was the Utah and the Arizona Advisory Council chairmen presented the standards and guidelines to the local ranchers in the Arizona strip and they were very pleased with the way things were going.

What we hope to do is to provide more flexibility and to look at standards as performance measures or goals so everybody knows what the rules are right up front. I think what we'll see is we'll see more decision space for the permittee, providing the standards are adhered to. And, of course, in the guidelines are a wide variety of tools that they will use to achieve those goals, whether it be rest-rotation strategies, fencing, water development, or different kinds of rest-rotation strategies. We're just really excited with how things are going. As Evan Zimmerman told me—Mr. Zimmerman is a permittee in Oregon—in fact I've never been to anyone's ranch whose driveway is 25 miles long before, just north of the Nevada State line, and he said to me, "For two years we hollered at each other, and now we're starting to talk and work the differences out and we're real pleased."

WILDLAND FIRE

Mr. SKAGGS. Your executive summary page states an additional $12 million is requested for wildland fire activities of BLM, the Park Service, Fish and Wildlife Service, and BIA. I'm just curious about how to interpret that. Do you have responsibilities for fire management on their properties as well?

Mr. DOMBECK. BLM is sort of the host of the fire programs for the other agencies. We're the lead agency at the National Inter-Agency Fire Center in Boise and so the funding for the Interior agencies——

Mr. SKAGGS. All comes through you.

Mr. DOMBECK. Except the Forest Service.

Mr. SKAGGS. I know that you've been working, again, in Colorado and elsewhere learning the lessons in the wake of the Storm King fire on inter-agency, State and Federal coordination—can you give me a progress report on that effort?

Mr. DOMBECK. I think we've made tremendous progress. The last year was an easy year from the standpoint of wildland fire, and what we have is all managers on heightened awareness. One of the things that's interesting with the fire community is these fire fighters are so good at what they do, managers—the area managers, the field managers—really don't want to meddle in their programs and over time the management had somewhat become disengaged with the rest of the fire program. The lesson that we learned with Storm King Mountain and some of the other situations that we looked at, is the need for managers to be right in the middle. Not in the way, but continually asking the hard questions about safety, about our ability to respond, about plans. What are we going to do if we have a lightning strike here? How are we going to deal with that fire? The whole balance between suppression and pre-suppression is another area of concern.

I have another example from where I was last week. In fact, they gave me a little write-up about it and I was so excited, I was going to write to the rest of the Bureau employees. Let me just summarize. Halipine Mountain in Mojave County, Arizona: there's a Park City trailer park on the north side of the mountain and this is high desert chaparral, three and one-half inches of rain a year. There hasn't been a fire there in a long, long time. Over the last two years we spent $3 million putting fires out in that area and the prescribed burn plan now calls for a mosaic of prescribed burns around the development that will cost about $20,000 to $50,000 a year. If there's a lightning strike, we will allow that to burn because it can burn safely up to about 20,000 acres per year, so there's a limit. This is in response to the Clean Air Act and the smoke and all that sort of thing.

It's those kinds of local plans that we need to be developing all over the country to reduce these fuels, because when you have a fire where you have this tremendous fuel build-up like we had at, say, Storm King or Yellowstone in 1988, it's no different than a hurricane or an earthquake. It's just something that's humanly impossible to contain even if we put the entire Department of Defense on it. How we manage that land, utilize fire as a management tool, and keep the fuel loadings down is how we're going to make progress. Colorado, in fact, is one of the lead States with Governor Romer and BLM in making progress in developing Federal, State and local fire management plans and really pulling our resources together.

Now I just want to make a point on the $12 million increase that has been worked out very closely with the subcommittee staff. The funding request for fire is based upon the most efficient management level averaged over a 10-year period. We're at about 84 percent of that level in our request for 1997.

FTE CEILING

Mr. SKAGGS. Can I ask one more question, Mr. Chairman? Please justify your fairly significant request for additional FTE, especially after the Secretary, this morning, was rightly pointing out that the Department overall has done more than its share of shouldering the burden of reducing the size of the Government. What are those 567 folks going to be doing?

Mr. DOMBECK. I will ask Bob Henry to explain the details of the accounting system, but what I can tell you is even though BLM's FTEs are something over 11,000, we actually have slightly over 9,000 warm bodies employed. That's because that's all the money we have to pay salaries for, so it's really a money-limited situation rather than the FTE system. We bought out 922 employees during the buyout. We're somewhat in excess of 1,000 people employed below where we were just a couple of years ago and it appears that that trend will be down. In fact, managing our skill mix is real tough right now because we're losing people; a lot of people have walked out the door. For example, at headquarters, with the reductions that we've had here, we've got some areas, particularly in the renewable resources, where we really need to look at our skill mix and make sure that we have the capability to deliver in a lot of areas. And that's also true for field units.

Mr. SKAGGS. So, notwithstanding this, you're not going to have more people working at BLM next year.

Mr. DOMBECK. Bob, tell us about the details.

Mr. HENRY. That's correct. I think our budget reflects that and Mike alluded to it, a somewhat good situation in that we have made a lot of the reductions that we need to make. We are ahead of the curve that we planned to be at with the buyouts and attrition so that now we are in a situation in which it is really the dollars that are controlling the employment more than the FTE ceiling. And that's preferable, in a sense. I mean there's nothing more frustrating than having to budget to hire folks but because of an arbitrary FTE ceiling you can't act. So we don't have that. We have included in the FTE numbers—I believe it's 400 seasonal FTE—which give us some flexibility come field season to deal with summer programs.

Mr. SKAGGS. Thank you, Mr. Chairman.

Mr. REGULA. Mrs. Vucanovich?

COMMUNITY COORDINATION

Mrs. VUCANOVICH. Thank you, Mr. Chairman, and Director Dombeck, it's good to see you again.

You and I have talked in the past about in the past about the need for Federal land management agencies to include the local population in management decisions and I think we both agree on that point. I'm happy to see a greater effort on the part of the BLM to communicate better with the folks who are directly affected by your agency. I understand the Secretary of Interior, when he was here earlier today, emphasized partnership. But as you know there are many local economies across the United States that depend heavily on natural resources and I have some concerns about the Bureau's ability to effectively manage those resources, especially in light of budget cuts.

For instance, environmental degradation resulting from failure to gather wild horses is becoming severe in some areas; in other areas the lack of scientific information to support timely and defensible decisions is a problem. Fiscal constraints over the next several years can only make these problems worse, and it seems to me that all of this points to the need for maybe a new approach to managing public lands. As you know, current law allows the Federal land management agencies to enter into cooperative agreements and even to contract out management activities with strict Federal oversight.

So, theoretically, if the Bureau were to contract out the management activities of an area, you could then use fewer Federal personnel for oversight and yet still meet your management objectives. Is there any plan or is there any consideration given to this type of alternative to managing Federal lands?

Mr. DOMBECK. There are several points, I think, that are germane to your concern. Number one, our objective is to push the decision making process as close to the field level as possible. I thank of the Resource Advisory Councils that I mentioned. As the citizen owners, not just customers, they provide expertise to BLM on issues that are important to them. It's interesting to note that on these Resource Advisory Councils are people that come from all walks of life—elected officials, representatives of Native American tribes, representatives of academia, the conservation community, commodity producers, miners, ranchers, loggers, officers and guides—these kinds of things. Don Lapin is a member of the Reno RAC representing wild horses and burros.

In addition to preparing standards and guides for the health of public lands, they're going to be taking on issues like wildland fire. In fact, the Front Range RAC in Colorado is working on that issue now. The Owyhee Resource Advisory Council wants to work on invasion of noxious weeds. Some will work on cultural resources and other types of things to help focus where we're going. The other thing that is happening in the West, it's just wonderful to see as

I travel around, is local coalitions spring up. I think of the Umpqua watershed improvement group in southern Oregon where Weyerhauser, the Forest Service, BLM, Oregon Department of Fish and Wildlife, Trout Unlimited and others are coming together. Sometimes I almost believe that they're making things happen in spite of us because they've got people that are raising money and they're working collaboratively with the agencies. Our people are there as technical experts, as facilitators.

We could go to every State and see several examples like this. In fact, the Seeking Common Ground initiative which started in 1991 with the Isaac Walton League, the Forest Service, the Bureau of Land Management, a variety of constituency groups, has made tremendous progress in the Jarbidge area in your State. They are resolving conflicts primarily between elk and livestock, but also ones involving important aquatic resources. They helped us with some land exchanges, and it's just a wonderful way to go. So, things like that are happening across the country and one of my objectives is just to continue to push this, to reward people for doing it. Because the reality of it is that the agencies—not only BLM—are going to have to change the way we do business because we don't have the people or the money to operate the way we operated 10 years ago. The demands are increasing.

WILD HORSES

Mrs. VUCANOVICH. Well, that's true. I look at my State, for instance. The wild horse population is certainly creating management difficulties for you and my understanding is that the current law allows States to conduct roundups of stray horses that are outside of horse management areas. Does the Bureau have any concerns about States doing these roundups if we can get them to do it?

Mr. DOMBECK. Well, I'm not sure about the legal details. Maitland or Tip, do you know?

Mr. TIPTON. You're talking about horses that are officially wild horses or are not part of a designated herd?

Mrs. VUCANOVICH. They're stray horses—they're outside of the horse management area, so, yes, they're wild horses.

Mr. TIPTON. To my knowledge we do have cooperative arrangements with rangers in the States that do that.

Mrs. VUCANOVICH. Have you heard of any States doing it?

Mr. DOMBECK. Why don't we check that and we'll get back to you.

[The information follows:]

State estray laws only apply to livestock. Wild horses and burros do not come under the State definition of livestock and are therefore not subject to State livestock laws. The Wild Free-Roaming Horse and Burro Act of 1971, provides for protection, management and control of wild horses and burros. BLM has the authority and responsibility for identifying which animals are wild horses and burros. BLM regularly captures horses with brands or other markings that identify it as a domestic animal. When there are no markings and the animal is gathered in an area that is within or adjacent to an HMA or Herd Area (BLM has areas where wild horses and burros were found in 1971 and are thus afforded protection under the Act but are not designated for long-term management), BLM claims the animals as wild horses and burros. BLM/Nevada has a Memorandum of Understanding with the State Brand Inspector to this effect. If BLM does not claim the animals, they then fall under the jurisdiction of the State as "livestock."

The State has authority for control of livestock and wildlife. The State has the authority to require identification (brands) and to collect unclaimed, unbranded livestock as estray. Since wild horses and burros are not livestock, as per the Act, the State has no authority to regulate them or to remove them as estray. Location does not affect an animal's ownership status, when a protected animal strays from its identified range, it retains its protected status. This was supported by the Fallini Federal Case where the judge ruled that BLM was not required to restrain wild horses within their HMA, but was precluded from managing for them elsewhere.

The Wild Free-Roaming Horse and Burro Act of 1971 limits the authority to gather wild horses and burros to the Secretaries of Inteior and Agriculture. Unauthorized gathering or harassment of wild horses and burros is a violation under Section 8 of the Act and is punishable under Section 8(6) of the Act. BLM gathers and removes excess animals. BLM begins by removing all animals that have strayed from outside of the HMA boundaries in order to constrain wild horse and burro use to within their designated habitat. The fact that wild horses and burros are highly mobile animals results in occasional movements of animals outside of their HMAs but does not result in the protected status afforded them through the Act. BLM will continue to make it a priority to remove animals that are outside of the HMAs during all wild horse and burro gather actions (If a permittee's livestock stray from their designated allotment, they do not automatically become estray nor do they become the property of the permittee upon whose allotment they have strayed).

Mrs. VUCANOVICH. For instance, where I live horses come right in my front yard, which doesn't charm me at all. [Laughter.]

It's very frustrating. It's hard not to do something about it.

Mr. DOMBECK. We do roundups on military lands, Lake Nellis, places like that, but I'm not aware of a situation of where State funds are expended to round up wild horses, but we'll check that out.

CONTRACTED SERVICES AND COST-SHARE ARRANGEMENTS

Mrs. VUCANOVICH. Yes. Don Lapin might know. I wonder if you would be willing to look at contracting out management, maybe as part of your reinventing the Bureau of Land Management efforts?

Mr. DOMBECK. Well, of course, we have legal responsibilities and accountability, but a wide variety of types of things are contracted at this point. I guess it's whether you contract out the decisionmaking responsibilities, which, of course, we can't do at this point. We just need to work together with local people and look for efficient ways of doing things and pull our partners in.

For example, with the challenge cost-share programs we're probably more than doubling our appropriation in working with groups like Ducks Unlimited, Trout Unlimited, and the National Fish and Wildlife Foundation. There are a lot of interesting arrangements and things going on with some of the timber companies.

In the energy and minerals industry, again in your home State, some of the land exchanges that are occurring in the Carlin trend, have been very helpful in helping us piece together and deal with endangered species issues on Mary's River. I know the Fish and Wildlife Foundation, Trout Unlimited, and a wide variety of groups are part of that. Without the resources of the Carlin trend and the energy and minerals industry, a lot of that wouldn't be happening.

Mrs. VUCANOVICH. Well, I sense that most people are really trying to work together and trying to find some solutions and I think you, frankly, have been a part of that and we appreciate that. Because I think it makes a difference in my State, not the bad enemy all of the time.

I have other questions that I'll submit for the record. Thank you very much.

Mr. REGULA. Mr. Nethercutt.

Mr. NETHERCUTT. Thank you, Mr. Chairman, Gentlemen.

PAYMENTS IN LIEU OF TAXES

Mr. Director, I noticed in your budget summary that the line item under "Payments in Lieu of Taxes" is essentially level-funded, that there's no increase requested. I come from a rural district with some Federal land in it and these PILT funds are very important as our counties' struggle with a tax base problem. They are trying to find the money to provide the services for the people within the boundaries of the States and counties. Was there some reason that you did not request an increase? If not, why not?

Mr. DOMBECK. Well, it's just like the national checkbook that you're struggling with here as part of this committee. We also struggle to maintain a balance in programs and try to achieve the balance between, wild horses and burros, that have a reproductive rate of about 20 percent, and the other needs with salvage timber and a variety of things. It's really a matter of balance. We'd like to do more for all of these programs, and I'm sure you would, too.

If we could do something more with the 602(b) allocation, if I can help you with that, let me know. [Laughter.]

Mr. NETHERCUTT. We'll need all the help we can get, I think, Mr. Chairman.

MINERAL PATENT APPROVALS

Well, given that, it is my sense that many rural counties are going to look to other ways to meet their public service needs financially and will look to industries, not the least of which is mining out West. Given the fact that it takes sometimes years to get a mineral lease or approval for mining operations in these counties, it puts even greater pressure on the county governments if there isn't an increase in the payment-in-lieu-of-taxes program.

In your opinion, what's the primary reason for such delays in mineral patent approvals and other approvals for mining operations in these rural areas on Federal lands?

Mr. DOMBECK. Well, of course, the patent approvals have been under a moratorium since 1994. We are continuing to process patents, and we expect to process about 100 of them in Fiscal Year 1997 with the funds that we have requested. I believe the grandfathered patent backlog is about 365, and we would hope to get about 100 of those done.

One of the things that happened in the Bush administration is we lost a number of certified mineral examiners. We are now working on getting these mineral examiners certified to do the validity exams to help beef up our capability. However, the stark reality is, with the funding situation that we have it is difficult. We're reducing headquarters and we're down by about a thousand employees now. We've got lots of success stories in streamlining processes, but still, we need to look at tightening the fiscal belt. There are going to be services that are really going to be put under stress, like the various kinds of permit approvals, the right-of-way applications; the applications to drill, and so on. We've really got to take every effort we can to streamline those processes.

As a 20-year Federal employee, I'm as frustrated with some of the processes as I know anyone in this room is. We have made a lot of progress in that area. As I mentioned earlier, the time it takes to get a salvage timber sale out we've reduced from an average of 360 to 450 days down to as little as 150 days.

Assistant Director Tipton and his staff are working to streamline the permitting process; we're trying to take a business approach that a permit is a permit. Rather than have every individual type of permit in BLM have different rules, different approaches, and different processes, we're looking to streamline those to make it more user friendly and utilize technology. You can have almost parallel reviews using the computer and technologies that we have, rather than sending paper to one desk and having it sit for a week, if somebody is out in the field. We've just got to work every angle we can in the agencies to streamline. We know that a lot of these areas are controversial and if we shortcut the process, we're in court in no time at all.

Mr. NETHERCUTT. That's my sense of it. I thought that might be your answer.

That also applies to the mineral leases, I take it, and sales and lease/rentals and bonuses and royalties, and so on? Is that your same answer, that you're concerned about shortcutting existing laws that might cause a court reaction to a shortcutting process?

Mr. DOMBECK. I think one of the key lessons learned in the Pacific Northwest is, if we could have spent the money on the land that was spent in court on that issue, most everyone would be better off.

Mr. NETHERCUTT. Sure. I agree with you. I am one who feels that we can have, we should have, a strong mining industry in this country, and I fear that we're trying to send it overseas by government policies that frustrate the ability to get leases enacted and other mining operations underway. I understand the reason for it. It's just frustrating that there isn't a better way to accomplish environmentally what we want to and also have a mining industry that can survive.

ENERGY AND MINERAL RECEIPTS

What are your figures, if you have any—or, if you would, provide them for the record—what income does mining produce for the Federal Government every year? And you don't have to do it this moment, but my sense is it's substantial; it could be greater, and we ought to pursue it. And if you would provide that for the record, I'd appreciate it.

Mr. DOMBECK. We'll get that for the record.

[The information follows:]

Energy and Minerals Statistics (End of FY 1995)

1. **Leasing Statistics**

Commodity	Leases	Acres
Oil and Gas	51,000 (19,000 producing)	37,000,000
Coal	416 (103 producing)	603,000
Non Energy	533	590,000
Geothermal	400	550,000

2. **Production Statistics**

Commodity	Production	Royalties	Bonus Bids & Rents
Oil	133,000,000 bbl	$186,000,009	$90,000,000 (oil & gas)
Gas	152,000,000 mmcf	397,000,000	see above
Coal	323,560,000 tons	300,102,840	45,300,000
Non Energy	17,760,000 tons	39,600,000	
Geothermal	1,150 Megawatts	21,700,000	830,000

3. **Mining Law**

Claims, Total (inc. Small Miners)	305,000
Small Miner Claims	30,000
Mining Law Administration Fees, 1996	$32,650,000
Value of Production	$1.2 billion (est) *

* No royalty income is provided to the Federal Government

Note: In Oil and Gas, Coal, most of non-energy and geothermal, royalties and bonus bids are shared equally with the states. We shared about $537,301,000 in 1995.

Mr. DOMBECK. I can just give you some examples. In 1995, for example, the oil royalties were about $186 million and bonus bids and rents were about $90 million. Coal was about $300 million in royalties and $45 million in bonus bids and rents. And I've got to tell you, the coal program is one we're proud of because we do all that with an expenditure of $7 million. That's a pretty good return.

Geothermal, we produce over 1,100 megawatts; royalties are about $21 million. In total, BLM touches about $1.3 billion, including grazing, timber receipts, the whole thing. We'll give you that breakdown in detail.

MINERAL EXAMINATIONS

Mr. NETHERCUTT. Have you reinstated the third party mineral examination program?

Mr. DOMBECK. I'm not sure. Tip? No, we haven't.

Mr. NETHERCUTT. Could that help BLM clear this backlog of mineral patents? Would that be a possible resource or a process that could be used that would help clear some of the patent backlog?

Mr. TIPTON. It is a possible way of doing it. We're looking at any number of ways of trying to speed that up, but shortage of resources is the big problem. The buyouts that we took were not necessarily in the areas that you prefer to have buyouts. Some very critical technical people exercised their options and left us. Operating the current year budget at the level we are did not give us additional money that we were anticipating for staffing up in some of those areas to work on those backlogs.

But, actually, there's two types of backlogs. There's the patenting backlogs, which we have requested money for, and then there's the operations, the actual mining operations, of which there are over 6,500 active hardrock operations ongoing now. It's not all going overseas. And the point's often lost that a patent is not required in order to continue to mine——

Mr. NETHERCUTT. I understand.

Mr. TIPTON. So we're working very closely, particularly in the State of Nevada, with contractors. We're contracting out as much of that NEPA work as we can. The companies have been extremely cooperative in helping us a bundle with that. And to the extent that we're allowed to let those decisions go out to third party contractors, we can, but there is a limit. We ultimately have to make the final Federal decision, when it comes down to it, and have to have people onboard that are capable of reviewing some very highly complex technical work.

Mr. NETHERCUTT. I think to the extent you can use it, it may be a way to assist with the workload that you all have and still provide the protections necessary.

Mr. TIPTON. Well, given permission to do that, we could do that.

Mr. NETHERCUTT. Mr. Chairman, may I ask one more question? I don't mean to take extra time here.

Mr. REGULA. Take all the time you want.

COLUMBIA BASIN

Mr. NETHERCUTT. With regard to the Interior Columbia Basin Ecosystem Project, maybe you know my feelings on this. You and

I have talked a little bit about it. Do you know how much—and just provide this for the record, if you would, kindly—how much your agency has spent so far in your efforts on this project? My sense is that, at least the notes I have here indicate, you spent about $700,000 in Fiscal Year 1994, about $3.6 million in Fiscal Year 1995, and, last, you're planning to spend about $2.1 million in Fiscal Year 1996. I'm not sure if the figures may not be higher than that. Is that consistent with your records? If so, if you'd provide it for the record; if not, I'd appreciate having something on that.

Mr. DOMBECK. Yes, our figures show $657,000 in 1994; $3.8 million in 1995, and $1.2 million in 1996, to a total of $5.7 million.

Mr. NETHERCUTT. Okay. Would you also kindly provide information on how much more money you expect to ask for, if any? I haven't looked at the budget documents regarding that quite yet, but—and how many people you plan to have working on it?

Mr. DOMBECK. Well, at this point—and correct me if I'm wrong, Bob—I believe that we are not asking for more money for the Columbia Basin, that actually the bulk of the expenditure occurred in Fiscal Year 1995.

Mr. NETHERCUTT. Right. Okay. One other thing I'll just mention for the record, I strongly support the requested increase of a million dollars for noxious weed technologies. It's a good thing. We could use that out in the western States.

Thank you, Mr. Chairman.

WILD HORSE AND BURRO

Mr. REGULA. You mentioned about the wild horse and burro program. What's your success, or lack thereof, with that program?

Mr. DOMBECK. Last year we removed about 7,000 to 7,500 horses and adopted out 7,500 wild horses and burros. It's a program that I am somewhat concerned about. We're dealing with a reproductive rate of about 20 percent.

Mr. REGULA. So your population's not stabilized? It's probably increasing?

Mr. DOMBECK. Well, the removal is a large, very expensive and important program, that we need to stay on top of. Of course we're working with fertility technologies and a variety of things like that, but yet it's a very popular program. It's a program that has a very strong support base. In places where populations do get out of balance, it can be very controversial because, like any ungulate, when you have population problems, whether it's elk in Yellowstone or livestock on the range or wild horses and burros, you're going to have riparian problems and other problems associated with that.

It's an area that we really need to stay on top of. This is one of the reasons we're asking for an additional million dollars in that program. Because, like a lot of these things, like the abandoned mineland, the storm water runoff area where we're asking for money, it ends up not being money just for that, but it ends up being money that has—programs that have—tremendous impacts and ramifications on the health of the land and productivity and stability of communities, and a variety of things like that.

I think we're trying to keep the horse herds at about the mid-40,000 horses nationally.

Mr. REGULA. Do they just range freely across these lands?

Mr. DOMBECK. Yes.

Mr. REGULA. And so even if you were a livestock farmer that had a permit or a permittee paying so much per AUM, your lease or permit would be subjected to possibly an incursion of wild horses; right?

Mr. DOMBECK. Yes, that's right, and this is like I mentioned the Black Mountain agreement, that was just signed last week in Mojave County, Arizona. Basically, what this does is it resolves the conflicts, or is working to resolve the conflicts, between big game, horses, and livestock. And although there's a tremendous difference between sheep and cows as to the type of plants they select, when they graze, it amounts to a forage allocation issue over so much for this group and so much for the other group.

Mr. REGULA. Well, I assume that they probably are hard on the forage in some areas where they're overpopulated?

Mr. DOMBECK. Well, where populations are in balance, it's kind of interesting. I know Mrs. Vucanovich sees a lot of the wild horses. There are different populations with different genetic strains, and the experts, just by looking at an animal, can almost tell you where and what population they came from. Just like the person that's a real trout guru can tell you what stream that trout came out of by its color.

Mr. REGULA. Well, it amazes me that you have been able to adopt out 7,000? Because it seems to me at that state, it would be a bit——

Mrs. VUCANOVICH. You're falling behind.

Mr. REGULA [continuing]. A bit of a challenge to break them.

Mr. DOMBECK. Well, the adoptions are very popular. In fact, we have adoptions in the East in——

Mr. REGULA. Are they falling behind and not getting enough adopted or?

Mrs. VUCANOVICH. Yes. I mean, they're reproducing very quickly.

Mr. REGULA. What do you do, bring a batch of them into the East and then people come and adopt them?

Mr. DOMBECK. Yes, they're trucked. There are several major areas where we keep the horses that are brought in off the range. There are veterinarians there to make sure that—we're very careful to make sure that they're in good condition. They've got to be fed. They've got to be trucked. They're trucked, say, from Sparks to Palomino Valley, where the large facility is in Nevada. Then they will be trucked maybe to Lexington, Virginia or someplace like that.

Mr. REGULA. Do people adopt them for pleasure horses?

Mr. DOMBECK. Yes, it's a very, very popular, positive program; $125, and you've got to qualify. They're Federal property until you demonstrate that you've taken good care of the horse, and if you have had it for one year, then the animal is basically deeded over to you.

Mr. REGULA. It would seem to me they'd be difficult to break at this juncture, you know, when you're getting them. They're mature, I assume, when the people get them.

Mr. DOMBECK. Well, they can be all ages. There are some that are just not adoptable, and we have about 1,400 in a sanctuary in

Oklahoma that are basically nonadoptable. We also have horse experts that know these animals, and you would be amazed that you will see adopted horses in the Rose Bowl Parade and various places like that. They can be wonderful animals.

Mrs. VUCANOVICH. I'm just curious—maybe you'd like to say for the record how much it costs us to keep them in those sanctuaries per day.

Mr. DOMBECK. What is the figure per day per horse? We can provide that.

Mrs. VUCANOVICH. I know what it is. I just wanted you to—it's a lot. [Laughter.]

Mr. REGULA. I would think so.

[The information follows:]

The cost of keeping non adoptable horses in sanctuaries fluctuates from facility to facility, but the Oklahoma figure is $1.07 per horse per day. As of March 1, 1996 there were 1,141 horses in the facilities.

Mrs. VUCANOVICH. The adopt-a-horse program really works. It's just too bad we can't get more of them that way. It really does work.

Mr. DOMBECK. And we have no problem adopting out animals, and the burros are even more popular than the horses.

Mr. REGULA. That's interesting. I've got a filly that somebody could help me break; get one of your experts. [Laughter.]

MINERAL LEASING

Do you get to keep a portion of the receipts from mineral leasing, is that correct, for administering the leases?

Mr. DOMBECK. That's right, Bob Henry, you may want to go through the breakdown of that.

Mr. HENRY. What BLM gets to keep in the minerals area is the mine claim maintenance fee piece. The mineral leasing receipts themselves from coal, oil and gas, geothermal—BLM do not get a share of that.

Mr. REGULA. They go to the Treasury?

Mr. HENRY. They go to Treasury. Half goes to the States and the remainder goes to the Reclamation Fund and to the Treasury.

MINING PATENTS

Mr. REGULA. Has the moratorium on patents in any way inhibited the mining activity, given the fact that they can mine without the patent?

Mr. DOMBECK. I'm not sure that it has.

Tip, do you have a sense?

Mr. TIPTON. My sense is that it has not inhibited the mining per se.

Mr. REGULA. What would be the compelling reason that a permittee would want to get a patent? If they can mine freely, what would be the advantage to getting a patent on the land?

Mr. TIPTON. Obviously, it gives ownership——

Mr. REGULA. No, I understand that.

Mr. TIPTON [continuing]. To the company. It puts them under a different set of rules and regulations. I think the main thing, it gives them a certainty.

SPECIAL USE PERMITS

Mr. REGULA. Do you have lands you lease to resort areas, ski resorts, and so on, enterprises such as that?

Mr. DOMBECK. We have a variety of special use permits. However, the Forest Service has the bulk of the ski facilities. I think we might have a small, a very small corner of Sun Valley, there may be others.

HEALTH OF THE LANDS

Mr. REGULA. In your judgment, is the land under your jurisdiction better in terms of vegetation and the inhibiting of runoff each year? Is it getting better or is it getting worse or is it standing still?

Mr. DOMBECK. Well, I guess if we go back to the Dust Bowl era and go back to the 1900s, when we had the open range, and, finally, the Taylor Grazing Act in 1934, to begin to bring some order to these activities, certainly it's better today than it was then. I think it continues to improve. There are a lot of good stewards out there on the land. I'd be happy to provide for the record a breakdown of BLM managed range land and its conditions, as well as one for the riparian areas.

[The information follows:]

In general the BLM, in cooperation with the grazing permittees, has significantly improved the public rangelands during the past 60 years. For example, the area in good to excellent range condition has more than doubled since 1936 and the area in poor condition is reduced by more than half. Some public rangeland interests strongly believe that rangeland in any condition except excellent is undesirable. Despite substantial progress since enactment of the Taylor Grazing Act, some rangeland still produces below its potential and there are some areas of rangeland that remain in poor condition. Within these areas are the most ecologically important 1 percent of the rangelands, riparian areas. A high percentage of these rangeland areas, preferred by livestock, are in the greatest need of improvement. The rangeland in undesirable condition and with potential for improvement is given management priority. The Bureau is coordinating, cooperating, and consulting with Federal, state, local organizations and individuals to improve the health of rangelands.

It's probably the riparian areas and getting those areas in properly-functioning condition, that is most important.

RIPARIAN AREAS

I really think we have a positive message in that area because we have technologies—in fact, we've joined in a partnership with the Forest Service to improve riparian areas. I know Joe knows Wayne Elmore in Prineville, Oregon, who heads that up. There are a whole variety of restoration strategies. There was a perception for a long time that the only way we could protect the riparian areas was to fence them off. And, yet, we have areas where more pounds of forage are being produced; the water tables are rising; the stream channels are getting healthier, increasing their sinuousity under cut banks, woody vegetation, along the channels; and the fish are coming back.

It's to everybody's benefit because for every gully or sort of washed-out stream that's in some of these valleys that is way below the bench, so to speak, that's a below water-holding capability. When I think about water in the West and the importance of water to the West, there's really only one way that we know of that we can help with the water situation, and that's to slow the rate the water goes from the ground to the ocean. And you do this by water percolating out of streams into the groundwater table, just like a big sponge.

We have calculations of the millions of gallons of water that some of these dry gulches did hold at one time and can hold at one time, and the uses in most cases do not have to be stopped. It's just a matter of how they're managed that's important.

OVERGRAZING

Mr. REGULA. So have you been successful in preventing overgrazing with your permittees?

Mr. DOMBECK. Again, it's a mixed bag. I estimate that the large percentage of permittees are good stewards and do a good job, but, yet, as I visit with ranchers and ride in their pickups, you can drive an hour one way or another, and they'll say, "well, I could do a better job if I had that land."

COUNTY SUPREMACY

Mr. REGULA. Speaking of that, how's the morale of your people out in the field? You know, we've had the militia problems and in some areas where they've been apparently active; you've been threatened. Is morale pretty good, by and large? Do you feel that some of the hostilities have been diminished? I think I heard you say in your opening statement that you're working at better communications with private sector people.

Mr. DOMBECK. Yes. There are always—there are a few hot spots, but I think we've reached the high-water mark in violence and threats, and I think that's receding at this point. I think things like the visibility of the Freeman issue and the Unabomber stuff, and so on, is bringing to this—sometimes maybe people have a tendency to be lumped together, and they don't want to be lumped with that group.

The Nye County decision was made where they contended, based on equal footing doctrine, that the county or the State really owned the Federal land. Of course, that has been contested in court many times, as it was here just recently, and the court ruled in favor of the Federal Government.

My statement to those people upon that decision is that we're there with our hand out to work with you in a positive way. It's to everybody's benefit because really, you know, just like my salary, it's paid by the taxpayers, as well as all the employees at BLM, and it's in everybody's best interest to have an efficient organizational operation.

EMPLOYEE MORALE

Mr. REGULA. Do you encourage your people to get involved in community activities; i.e., Farm Bureau, Grange, Rotary, Kiwanis, or whatever it might be, Chamber of Commerce?

Mr. DOMBECK. BLM, our people, you know, their kids go to school with kids of other groups.

Mr. REGULA. Right.

Mr. DOMBECK. They belong to the same churches and Rotary, things like that. And they're very active members of the community. Our District Manager in Farmington is on the school board, and there is just example after example of this sort of thing.

Things are going well. In fact, I would say that you tend to hear about the problems, but for every problem there's probably a hundred successes and things working well.

From the standpoint of morale, it's been a tough year with the furloughs——

Mr. REGULA. I understand.

BLM'S DAILY WORKLOAD

Mr. DOMBECK [continuing]. And this sort of thing. In fact, one of the things I did that I brought along that I'm kind of proud of is, during the furlough, we decided to do an analysis of what BLM does in a day. And let me just read a couple of these statistics to you.

BLM collects about $750,000 from timber receipts, mineral sales, grazing, and other uses of public lands.

Mr. REGULA. On a daily basis?

Mr. DOMBECK. On a daily basis. We administer mineral leases that generate about $4.4 million every day. We issue about 100 permits for recreational activities, boating, things like that; hundreds of permits to let people cut Christmas trees, firewood, gather nuts, pinion nuts, mushrooms, you name it. We man 56 interpretative sites and visitors' centers; host about 180 people every day at camping facilities; issue about 12 rights-of-ways for telephone lines, electric transmission lines, pipelines; inspect about 300 oil and gas leases to ensure public health and safety, things like that. So it's——

Mr. REGULA. You just do oil and gas on the BLM, I assume?

Mr. DOMBECK. Well, also on Indian reservations and——

Mr. REGULA. I gather that you've enhanced your ability to cooperate with the Park Service and/or the Forest Service to maximize the expenditure of Federal dollars?

Mr. DOMBECK. We've got some good things going. I think if you look at it from the standpoint of the American public, the customer service is—I'm not sure they care what agencies we work for as long as we do the job.

Mr. REGULA. You're right.

COST EFFECTIVENESS

Mr. DOMBECK. We're asking for money, and I think the Senate's recommended money, for co-locating our regional office, the Forest Service regional office and BLM offices, in Oregon to facilitate efficiency in implementing the President's Forest Plan, where we'll have one reception area for both agencies. Our managers will be together in the same building and, hopefully, talk to one another more and participate in each other's meetings.

In Colorado, I think it is Durango, we've got a Resource Area manager who is also working as a San Juan National Forest deputy supervisor. We've got another area in the San Luis Valley in Colorado where, because BLM has more of the range expertise, where we're managing the range for both Forest Service and BLM.

They've got the timber expertise, so they're the timber program for both agencies. There's example after example after example.

Jack Ward Thomas and I have known each other for a long time, and we have really pushed this idea. We've made it possible administratively, telling our field managers, where it makes sense to have these exchanges, just do them. If it's not against the law, just do it. Forget about the forms and——

Mr. REGULA. Well, that's good news because we are faced with trying collectively to—we in the Congress and you in the agencies—be better managers, if we're going to meet our financial targets.

Speaking of targets, what's the status of BLM's efforts on meeting the salvage targets?

SALVAGE TIMBER

Mr. DOMBECK. Basically, in our entire timber program, we're ahead of schedule and overtarget, only slightly overtarget, but we've managed to meet all of our needs. Even before the language in the legislation, we made the commitment that we would do the timber harvest and meet the environmental laws. We've accomplished that and we're real proud of it.

Mr. REGULA. So you're accomplishing the salvage goals?

Mr. DOMBECK. Yes.

Mr. REGULA. Are you offering some alternative timber to purchasers where it might be desirable?

Mr. DOMBECK. I'm not sure what we've had to do at this point. Have we, Nancy?

Mr. REGULA. You probably don't have that big a timber program.

Ms. HAYES. Yes, we have done some.

Mr. DOMBECK. We have done it.

Ms. HAYES. Under terms of the rescission Act, BLM has not released some of the previously offered 318 sales. There are two categories that might prevent sale release. Some salvage units have threatened and endangered bird species "known to be nesting," and the Act requires us to provide replacement timber for any such units. Of course, it's all in litigation, but we've identified some stands of replacement timber. We're now starting to work with those purchasers who we know will be entitled to have their timber replaced because the criteria of Judge Hogan is met, as well as our own protocol.

On the other ones, where we have an environmentally-bad sale, but it doesn't have a nesting bird, we've awarded those sales, and we've been working with the purchasers to make modifications to those sales to meet the environmental laws and the standards and guidelines of the Forest Plan. We've been doing as best we can to do that, and a lot of the purchasers are responsible and have been willing to make modifications, increase buffers, and so on. Maybe not build a road where they wanted to build a road. We've had, I think, a great deal of success. I think we've modified something like eight sales so far and we have another eight more where we're in the negotiating phase.

COORDINATION

Mr. REGULA. It would seem from listening to you and other agencies that there's maybe a better spirit of cooperation among the agencies than has been true in the past, as each tries to contribute in overall better management or stewardship of the Federal dollar.

Mr. DOMBECK. Well, I think that's true. I think we're really trying to blur the lines between agencies and make progress, and we're going to have to do more of that in the future, as we tighten our belt and have less resources to work with.

PUBLIC LAND RECORDS

And that's not only limited to Federal agencies. I have to tell you a couple of other things that I was happy to do this week. One of them involves your State. BLM turned over the CD ROM of the 98,000 land records for the State of Ohio. I presented that to David Bergman from the Ohio State Land Commissioner's Office on Monday. It's on a CD ROM just like Dean Martin or the Beetles.

Mr. REGULA. Those will be a best-seller. [Laughter.]

Mr. DOMBECK. Well, those are all the land records of all the historical land transactions in the State of Ohio. In fact, your family's name is on there, and I will send you one.

People are very interested in this as they track their family's settlement across the country from Ellis Island.

Mr. REGULA. Are you talking about private as well as public lands?

Mr. DOMBECK. Yes, all the land that was in the public domain at one time that has been either homesteaded out or a land grant——

Mr. REGULA. Patents were issued?

Mr. DOMBECK. That's right.

Mr. REGULA. Back in my office at home I have a patent that was signed by James Monroe, I believe it was. I think they paid a lot of the veterans of the War of 1812 and they gave them land in Ohio in lieu of wages.

Mr. DOMBECK. Yes.

Mr. REGULA. Because when I practiced law, I did a lot of title work, and if you went back far enough, you could always get back to a patent in 1816, in that era when a lot of these lands were patented.

Mr. DOMBECK. A lieutenant general would have received 1,100 acres at that time——

Mr. REGULA. Oh, is that right?

Mr. DOMBECK [continuing]. And a private would have gotten 160 acres, instead of a monthly pension check for the rest of their lives. So it's sort of get behind the plow and——

Mr. REGULA. Well, there must have been a lot of privates in my area because most of them are 160 acres that I've run across. [Laughter.]

Mr. DOMBECK. But, at any rate, those CDs are being sent to each of the 88 counties——

Mr. REGULA. I'm curious, how does BLM get into collating this body of records?

Mr. DOMBECK. Well, part of BLM's responsibility—in fact, part of the rich history of the agency that few people know about—is its general land office responsibilities. When BLM was formed—in fact, this year is our 50th birthday—not only is it the 50th anniversary of President Truman's signing of the Executive Order that merged the grazing service and the general land office. So BLM has responsibilities as the realtor of the U.S. Government, and also as the official surveyor for the Federal Government. BLM also maintains all the records of all the land transactions associated with the public domain. I believe there are about 9 million records.

Mr. REGULA. Well, most of the land—all of it had to start out as public land, most of the U.S. land, would it not?

Mr. DOMBECK. That's right. It initially was 1.8 billion acres, and what remains is about 270 million acres today.

So we manage—in fact, we'd love to take you on a tour of the Springfield office that has all this. Because of the acid in the paper, these original records are beginning to deteriorate; now they're being put on CD ROMs. So we have these big machines that look like big Wurlitzer jukeboxes that have these permanent records, and you can access records, and people are doing genealogical studies and tracing their family's history across the land as they moved from—immigrated through Ellis Island and across the country.

Mr. REGULA. Do your records follow the land through subsequent transfers, up to what period of time, 1996?

Mr. DOMBECK. I believe most of them go to about 1908, but I'd have to get back to you on that.

[The information follows:]

The Federal land records date back to the formation of the United States of America in 1788. The General Land Office, formed in 1812, gathered these records and maintained them until 1946. In 1946, the General Land Office and the Grazing Service were combined to form the Bureau of Land Management. The Federal land records are maintained as the official record of the disposition of the nation's vast land holdings. These records show when the lands left the administration of the Federal government, but not subsequent ownership. State, County and local government agencies track the land records after the lands are patented.

Mr. REGULA. So you don't keep it current in terms of land transfers?

Mr. DOMBECK. I believe that's right. Is that correct?

Mr. HENRY. That's correct.

Mr. REGULA. Do you just make the original grant from the public? Where it goes from public ownership into private, at that point your recordkeeping stops then, is that correct?

Mr. HENRY. Correct, unless, for whatever reason, we had retained the mineral estate, or whatever.

Mr. REGULA. Some interest.

Mr. HENRY. If it was full, we would not.

Mr. REGULA. Now the land office goes back to what, 1812?

Mr. DOMBECK. 1812, that's right.

Mr. REGULA. So that was really the genesis of today's BLM?

Mr. DOMBECK. Yes. It's an incredibly rich history. In fact, another interesting story was Abraham Lincoln made a run at being head of the general land office in 1849 and didn't succeed, and he often said that was one of his major disappointments in life because that was considered to be one of the most powerful jobs in the country, overseeing the disposal of this land.

If you look at the change in philosophy and sometimes flawed policies that led to the land patterns that we have today that we need to work with, it's a fascinating history.

Mr. REGULA. If he had succeeded at that objective, it might have altered history.

Mr. DOMBECK. It might have.

Mr. REGULA. Fascinating.

Now we'll have some questions for the record.

FUNDING PRIORITIES

Your increases are not excessive in your request, but I have to again caution you, as I have with the others, that depending on our allocation, we may have to come back to you and say, in light of the 602(b) numbers, this is what we can have for your agency, and then ask you to rethink your priorities.

Mr. DOMBECK. And we'll be happy to do that. In fact, we'll be working with the staff and the Committee, the entire Committee, because as we look at the realities of the budget, we have done lots of streamlining, and need to continue that. As we look at our organizational structure and ways to save money, we're right at the point where we're going to be impacting services expected by the public. When those services start to slow down, I'm going to be getting letters and you're going to be getting letters, and we just need to be able to carefully prioritize what we do.

COST RECOVERY THROUGH USER FEES

Mr. REGULA. Could you expand your user fees? You mentioned services to the public. Is there a potential for some assistance by raising or charging greater user fees? I think about back home the State of Ohio, and the local counties, where recording fees have been quintupled in the last several years, simply because the local governments are getting financially impacted, so they're passing the fees on to the public for providing service.

Mr. DOMBECK. Well, we're looking at a variety of cost recovery options, and of course you're very familiar with the recreation fee issue and other things like that. One of the objectives of this administration is to get a fair return for Federal resources, and we continue to be commended to try to achieve that. The bottom line is we just have to make every effort we can to tighten our belt and do things better and smarter.

BLM OPERATIONAL PRIORITIES

As I talk to employees, there are three things I always push. No. 1 is looking at the big picture, the core business of BLM, and going back to your core business, because it's like any corporation, when you start to tighten the belt—you know, Kodak or whoever it is, they spin off the adjunct businesses and return to their core business, and that is what we have to look at.

The second thing is we're using every avenue we can to reduce our administrative, our procurement, our personnel, the number of telephones that we have. We've cut travel expenses, travel allocations, by about 50 percent. We've got a hiring freeze on. All those kinds of things are occurring.

Then the third thing I push with employees is each individual—I want each individual looking at their job, because they know their job better than anybody else does: is that form necessary? What can we do, what can you do to streamline your job, to work better with someone else? And, most importantly, write less and write simpler because none of us needs more to read. And that's where I joke with them that, you know, when BLM gets the writing thing down, then we'll go and help IRS. [Laughter.]

Mr. REGULA. Well, Mr. Deming would be impressed with what you've told me. [Laughter.]

RECREATION FACILITIES

Recreation. You have a wide variety, but you have some rather nice facilities such as—what is it, Yaquina?

Mr. DOMBECK. Yaquina Head in Oregon is a wonderful facility.

Mr. REGULA. That's what I've heard.

Mr. DOMBECK. In fact, it's the only physically-challenged-accessible tidepool that I'm aware of. It's one that Senator Hatfield has been very interested in and helped us with. It teaches people about marine ecology and the coast of Oregon and the rainforest there and——

Mr. REGULA. Do you have several of these facilities of that quality or is that somewhat unique?

Mr. DOMBECK. I don't know exactly how many there are. There are maybe a handful. The Oregon Trail Visitors' Center at Baker, Oregon is another one that's a fantastic facility. I was there about a year ago and was very impressed with the interpretation of the Oregon Trail and the people moving West and the artifacts and culture, and things associated with that.

I think those are two of the areas that really stand out. Of course, then we have in total 56 visitor centers, but these are more of the, I would say, the top of the line. We have things like the San Pedro National Conservation Area that's probably one of the hallmark areas for songbirds as they migrate from Mexico. The riparian areas are interesting because they're really the avenues that the neotropical migratory birds take as they move up north each spring and south each fall. Somebody once called them the filling stations for birds. [Laughter.]

The cover is there as they move across the desert, and the food, and that sort of thing.

A lot of areas like this—the King's Range is another really fascinating area that BLM manages that was designated a national conservation area. In fact, before FLPMA was passed in 1969, we celebrated the 25th anniversary of the King's Range in 1994. This is a fascinating area because you've got about a 400-foot rise in elevation within a mile of the Pacific Ocean. In fact, it's the Matola River that is on the north side of the King's Range, and it's seismically one of the most active areas in the United States. They have an average of about 200 earthquakes a day; only for the most part, they're small, and the area is continually uplifting. As a result of that topography, Highway 101 and 1, as it goes up the West Coast of California, had to bypass the King's Range and go inland——

Mr. REGULA. Too unstable.

Mr. DOMBECK [continuing]. Because it was—well, it's really rugged country, and it's just a beautiful area and a destination, a vacation spot for tourists.

Mr. REGULA. Last question: do you have a home page?

Mr. DOMBECK. Yes.

INTERNET RESOURCES

Mr. REGULA. Do you have quite a few contacts? I'm just curious; you talk about visitors. Suppose I in my home had the capability of plugging into what, the Internet, what could I find out about possible information that might be of interest to me in Ohio in terms of BLM?

Mr. DOMBECK. I have not spent as much time on BLM's home page as—it's this job, I guess. We have information on the overall BLM programs, the agency objectives, the key personnel, and a lot of the district field offices have home pages that highlight resources in their area, and all that sort of thing.

I've got to show you one other thing that's sort of along these lines. There's a new book that's out called, "America's Secret Recreation Spots." The whole book is about BLM and its unique recreation opportunities.

Mr. REGULA. Just BLM?

Mr. DOMBECK. The lands that nobody wanted 30 or 40 years ago are lands that more and more people are looking at to get away from the crowds in the parks and things like that. So we——

Mr. REGULA. If I were a teacher that wanted to talk about the public resources of the United States, would I be able, using your home page, to have a pretty good information base to share with students——

Mr. DOMBECK. Yes.

Mr. REGULA [continuing]. About BLM?

Mr. DOMBECK. Yes. For example, the recreation resources, which I read off some of them—I have a list of here—these kinds of things, the numbers of campgrounds, the miles of streams, recreation areas, hiking trails, numbers of caves, those kinds of things, all that——

Mr. REGULA. You're kind of a best-kept secret in a way because people start with the parks. They have the highest visibility, and then I think the Forest Service is probably No. 2 in visibility as far as recreation. And, yet, you have far more acreage than either of the others. And from this book, it's quite clear that there's a lot of recreation opportunities on BLM lands.

Mr. DOMBECK. We're also the most poorly funded. [Laughter.]

Mr. REGULA. Well, I think you have a sales job. [Laughter.]

Maybe you need to spend your evenings studying your home page and looking for opportunities to enhance it. [Laughter.]

And then maybe I'll get letters from my constituents saying: "Give BLM more money." [Laughter.]

Mr. DOMBECK. Well, the 50th anniversary that we're celebrating this year——

Mr. REGULA. That's a great opportunity.

Mr. DOMBECK [continuing]. Is an opportunity that we're using. Partners are very interested in working with us and we've got programs with the energy and minerals industry, the timber industry, Trout Unlimited, Ducks Unlimited, Quail Unlimited, the whole array of constituency groups, the National Geographic. We're proud of that, and this is an opportunity for the American people to learn about their heritage because it's——

Mr. REGULA. You know, you ought to get the National Geographic to run a feature story on your 50th anniversary, the BLM story. I don't know if you've thought about that, but that would be a great opportunity. Maybe get one of the travel groups to feature BLM. The 50th gives you an entree perhaps.

Mr. DOMBECK. Yes. And it's interesting, the changes. I spoke to the National Association of Counties last year at a meeting in St. George, Utah. Washington County, Utah had—you think of southern Utah as open space and nobody—3,400 building permits that year. Washington County, Utah is developing open space plans to protect the viewsheds and uncontrolled development.

And one of the things that is fascinating, at one of the Secretary's policy meetings about a month ago, we had a presentation about open space. This was about green space in urban areas. They showed aerial views of what the development of San Francisco, Chicago, and Philadelphia would have looked like in 1850, 1900, 1950, and today. And when you look at these urban areas, you see they have no options; everything's filled in. I turned to Bob Armstrong, the Assistant Secretary, and I said to Bob, "You know, that really makes me feel good that I'm working for BLM because here we have the open space for 100 and 200 years from now for the American people." It's becoming more and more valuable and more and more important in every respect—from the standpoint of cultural resources, education, and if you look at Europe and a lot of other places, they don't have the options that we have.

For someone that deals with the grazing issues and timber and offroad vehicle issues, and things like that, it just made me feel good to see the fact that, when you compare Philadelphia to some of the BLM lands, we still have lots of options and we need to maintain those for the future.

Mr. REGULA. Well, I do think you're right that open space will become more and more valued by the public because, as we get urbanized, people are going to seek the value, the personal values, that go with open space and recreation, and so on. So, in a sense, you're the custodian of a very valuable resource of this Nation.

Mr. DOMBECK. It's my belief that natural resource management is really a white hat business. It's about better hunting and better fishing and increased weight gain in livestock and environmentally-benign energy and minerals operations that the economy of this country and its people depend on. It's more songbirds, protecting your cultural resources. I think we continually need to focus on that goal because these are things that everybody's for, maintaining these kinds of values.

And people—as the country gets more urbanized, people seek these opportunities out more and more. In fact, an interesting statistic that I heard is that, for example, Nevada is one of the most urbanized States in the country with something like only 7 percent of the population of the State of Nevada living outside of metropolitan or nonincorporated areas, or whatever. These areas, this public land is very important to those people.

I think of Red Rock Canyon, the national conservation area and visitor center, as showcase areas such as the ones I mentioned at Yaquina Head and the Oregon Trail Center. They've had a tremendous influence on the desirability of Clark County and the Las Vegas Valley. Open space is very important.

Mr. REGULA. I'd be curious, have you ever done any analysis of the license plates in your visitor areas to determine whether most of them are local or within, say, 50 miles or whether they're coming from other States, especially from the Midwest and East?

Mr. DOMBECK. I don't know. We can—we'll check that out.

[The information follows:]

BLM has worked with state and local travel tourism industry to conduct visitor surveys to determine visitors' backgrounds. These data are not summarized on a national basis, only on a local basis. Generally, most visitors are in close proximity to the area they visit. Most small recreation site users or disperse site users travel from 50 to 100 miles to reach their destination. However, larger sites (i.e., Yaquina Head, OR, Red Rocks, NV, or Flagstaff Hill, OR) receive visitors from all over the world. Many of the more famous National Park sites (i.e., Yellowstone, Grand Tetons, Grand Canyon) are surrounded by public lands outside the park boundary. These lands provide alternative and overflow camping and additional recreational areas. There is growing international audience that wants to experience the more primitive and authentic adventure provided on the public lands. Pacific Rim and western European countries, especially, are promoting this vacation experience through tourism packages.

Mr. REGULA. It would be interesting to know——

Mr. DOMBECK. If we have, we'll let you know.

Mr. REGULA [continuing]. Whether you're getting a flow of visitors. Obviously, if you go to Yellowstone or Yosemite, you'd have a lot of out of State because those are landmark visitor destinations, but I'm curious whether BLM is getting that kind of an influx.

Mr. DOMBECK. Well, I know some of our areas certainly do, and it would be fascinating to see the comparative data—

Mr. REGULA. Yes.

Mr. DOMBECK [continuing]. Of Yellowstone and the Smokies and Red Rock or Yaquina Head.

Mr. REGULA. Right. Well, thank you for coming. It's been an interesting discussion.

Mr. DOMBECK. Thank you.

Mr. REGULA. The committee's adjourned.

INTERIOR APPROPRIATIONS SUBCOMMITTEE
HEARING QUESTIONS
BUREAU OF LAND MANAGEMENT
APRIL 24, 1996

GENERAL

Question: **Your budget for FY 1997 contains an increase above FY 1996 of $45.3 million or 4%. Given current Federal budgetary constraints, can you tell this committee why BLM feels it should be exempted from sharing the burden of deficit reduction?**

Answer: The increases requested for the the Bureau of Land Management are an integral part of the President's 1997 budget and reflect the priority that the President placed on maintaining the Nation's public lands. Taken as a whole, the President's budget would result in the lowest deficit in nominal dollars since 1982. As a percentage of gross domestic product, the deficit would be reduced to 1.8 percent, down from 4.9 percent as recently as 1992 and the lowest percentage since 1979.

The BLM is an asset to the American taxpayer because it raises more money than it spends. In fact, BLM is one of the largest revenue producers for the U.S. Treasury and, as such, is contributing significantly to the goal of deficit reduction. Reductions in BLM's operating accounts could result in lessened receipts generated for the Taxpayer. Please note that a majority of the increases proposed will be used to support Departmental-wide programs such as in Fire Protection and the Central Hazardous Materials fund. When these increases that benefit other Interior agencies are removed (about $19 million), BLM's actual increase is proposed to be only $26 million or 2.5%. While BLM has gone through downsizing, the requirement to maintain and operate facilities, manage resources, and provide services on 270 million acres of land has not diminished. As a result, even considering program reductions since 1995, the real difference between 1995 and 1997 is a significant decrease if the estimated increase in the cost of doing business is taken into account.

Question: **The Committee's 602b allocation is expected to be less than the current fiscal year. In light of this reality, can you provide the Committee with a prioritization of your most critically needed increases and offer offsets for this additional spending from other programs within the BLM?**

Answer: The 1997 budget for the Department of the Interior was developed within the overall context of the President's plan to balance the budget by 2002. The funding levels proposed for the Interior programs reflect the priority that the President and Secretary Babbitt place on natural resource protection, sound science and programs for Native Americans. We urge the Subcommittee to seek a 602(b) allocation that will permit adequate funding for these important National programs. Within the total sought for the Department, the Administration and the Secretary carefully weighed needs across bureau and program lines. The funding levels proposed for our bureau are an integral part of a balanced package for the Department's programs as a whole.

Question: **The FY 1996 conference report provides for reductions to BLM operations. How do the reductions fit into BLM's downsizing and restructuring efforts?**

Answer: For the most part they are consistent with our efforts. However, certain of the reductions will impact our ability to provide quality service to our customers. The reductions in land and realty management and in the Recreation Management activity are two areas that the reductions are inconsistent with our efforts to provide quality customer service. In addition, the proposed reduction in ALMRS will negatively affect our ability to complete the project in a timely manner and postpone the benefits to the public of implementation of the system.

Question: **Are the reductions and your restructuring efforts consistent with National Performance Review (NPR) recommendations?**

Answer: Yes. The NPR focuses on reducing overhead in the personnel, budgeting, and procurement areas, removing layers of duplicative overhead and flattening the organization. Our actions will develop a more streamlined and effective agency by reducing Headquarters-type functions, wherever they are located. This will result in a larger percentage of dollars expended for delivery of direct mission-related products and services to BLM's customers. All of these actions are being taken with a final target date of 1999.

Question: **How many actual positions has BLM eliminated as opposed to open positions that will not be filled?**

Answer: Over the 2 years between March, 1994 and March, 1996, BLM reduced employees on its payroll by 1,136. Most of those positions were eliminated through buyouts, and those buyout positions have not been refilled. One area of confusion could lie in the relationship between our FTE ceiling and actual employees on board. BLM's FTE ceiling is now significantly higher than the number of employees on board beacuse the Bureau does not have sufficient funds to hire to the 11,067

FTE ceiling.

Question: **Are there still ongoing actions to reorganize the BLM? If so, what are they?**

Answer: Yes. We are in the process of implementing our *Field Organization Strategy*. This is a series of state-by-state plans that implements our goal of flattening the organization by moving towards a field structure that will have only one level under a State Office (SO). For example, the Utah BLM organization is presently composed of 4 SO divisions, 5 District Offices, and 16 Resource Areas. By the end of FY96, Utah will reorganize to 3 SO divisions, 11 field offices and a contact station. This will reduce the number of mid-level supervisors which will result in increased resources devoted to on-the-ground management. In addition, we are reassessing the results of our recent Headquarters reorganization with a view to continue streamlining and making "fine tuning" adjustments.

Question: **What are you doing to ensure that personnel reductions are being taken primarily in non-field levels of the organization? Provide a table showing the number of FTE in BLM headquarters and each state office for FY 1996 and FY 1997.**

Answer: At our three main non-field level organizations (Washington Office (WO), Service Center (SC), Fire Center (FC)), we have reduced our on-board employees by 27%. Since 1994, the number of employees at WO has reduced from 515 to 320, a savings of 195 employees. At the Denver Service Center, the number of employees has been reduced from 365 to 320, a reduction of 45 employees. At the National Fire Center, the number of employees at the FC has reduced from 267 to 236, a reduction of 31 employees. Clearly progress is being made towards our target organization.

FY 1996 - Headquarters Staff	FY 1997 - Headquarters Staff
1,160	1,125

Question: **The Committee used to receive a number of reports detailing the effectiveness of BLM's programs including Fish and Wildlife 2000 and Recreation 2000. Are these important reports being replaced with some other reporting requirements? If yes, what are they?**

Answer: BLM would like to consolidate as many accountability/status reports as possible into either the *Annual Report* or *Public Land Statistics*. Public Land Statistics will contain quantitative and statistical information about the public lands. The Annual Report presents qualitative and quantitative information on results (outcomes) of programs as defined by GPRA. At this time, only the Chief Financial Officer's Report and the FLPMA Report have been consolidated into the Annual Performance Report. BLM seeks to reduce duplication of effort by making the Annual Report it's primary reporting medium. (The Recreation 2000 report was last published in 1993. The reports for 1994 and 1995 are in draft. The Fish and Wildlife 2000 Report was published in 1994. The 1995 report is under discussion, and may be integrated into *Public Land Statistics*. Program staff said that the downsizing of headquarters staff has required the re-prioritization of work.)

Question: **What is the current status of the Department's and BLM's efforts to develop performance measures for all programs?**

Answer: The foundation for performance measures, as identified by the Government Performance And Results Act (GPRA), includes a strategic plan, evaluation process, and annual performance plan. (Other components *follow* development of performance measures, such as performance reports).

The BLM Strategic Plan has been drafted, and is due to be completed in September 1996. The Strategic Plan identifies the agency goals and objectives; performance measures gauge progress toward those goals and objectives. The existing evaluation system has been redesigned to employ continuous improvement methods and performance measures. BLM has identified customers and captured customer satisfaction information through the National Performance Review. This information directly links to several performance measures, and will be the vehicle for collection of additional customer data in an ongoing process.

BLM has been through a complete improvement cycle of developing national performance measures. Existing input and output measures have been examined, resulting in a reduction of about 50% of the data collected for budget purposes in the past. Outcome measures are in need of improvement during the second improvement cycle. As such, BLM is working with the USFS on joint measures in 3 areas-recreation, customer service, and forest health as well as with 14 other natural resource agencies to identify other areas of collaboration on performance measures, performance plans, and performance reports. In addition, BLM is currently working to link budget to performance measures and strategic objectives. The Bureau will be introducing national performance measures and GPRA to field offices starting in July. Headquarters has developed a prototype Annual Performance Report.

Question: **When can the Committee expect to see results from these performance measure efforts?**

Answer: The 1995 Annual Report contained data resulting from several, but not all, performance measures. In 1996, additional measures will be incorporated, along with performance data. The 1998 Budget will have components of an Annual Performance Plan. Other components of GPRA will subsequently conform to the annual plan, such as evaluations, and reports. Performance Measures are being improved through 3 annual cycles; BLM expects optimal compliance with GPRA in 1999 and 2000. Results on-the-ground can happen as immediately as performance measures are communicated to field offices. BLM believes "What gets measured, gets done". Therefore, field offices will be attentive to what we are measuring, and direct efforts at what we are trying to achieve and how we can improve. The Committee should expect to see improvement in performance plans, measures, and reports each and every year. BLM would be pleased to provide the committee with briefings or materials at any time.

Question: **In the Committee's report, we suggested that agencies should "collocate and combine functions, systems, programs, activities, or field locations." We further stated that joint efforts in planning and budgeting, joint use of administration, technical, and management systems, and joint stewardship of natural and cultural resources could lead to greater efficiencies. What has BLM done to address these issues?**

Answer: As detailed in the next answer, we are examining all areas for collocation and combination as the opportunities present themselves. For the past three years, we have worked diligently to erase the artificial administrative boundaries between agencies both on-the-ground and in other systems. This is now part of our organizational culture. As an example, we now routinely include representatives from other agencies in our re-engineering teams and use their ideas in our redesign of business systems. The reverse is also true as exemplified by the adoption of our ALMRS system as the DOI records system.

Question: **Can you provide some examples of how BLM has worked cooperatively with other agencies to achieve greater efficiencies?**

Answer: In Pacific Northwest, BLM is working closely with the Forest Service, sharing both functions and offices. In fact, the Senate has added $4 million to the proposed 1996 budget to realign and combine space usage in Portland between the FS and BLM. This money will be recouped in less than 4 years.

In Colorado, BLM's San Juan Resource Area Manager is also the Deputy Forest Supervisor for the San Juan National Forest. In Sacramento, California, the BLM has collocated its reduced personnel staff with the Bureau of Reclamation which also serves BIA in California. This is projected to save BLM in California 30% from previous personnel costs. In the California Desert, land management functions are closely coordinated, through the Desert Managers group which has resulted in the sharing of some resources between agencies to manage the Desert in a cost-effective and efficient manner.

Question: **BLM has been identified as one of four agencies to participate in study of government surveying and mapping activities to be conducted by the National Academy of Public Administration. What is the current status of BLM's efforts to move this study forward?**

Answers: BLM is identified as one of four agencies (the Geological Survey, Forest Service, and National Oceanic and Atmospheric Administration are the others) to determine what are the inherently Federal elements of those activities. BLM's responsibilities lie primarily in its statutory authorities for the surveying of Federal interest lands to determine legal ownership boundaries. The Bureau supports the study because of its statutory authority for surveying public lands. Currently, the Deputy Director is prioritizing internal funding mechanics. Collaboration among FS, GS, NOAA and BLM for study is positive.

Question: **Has BLM agreed to provide it's share of the funds that are necessary to get this study underway? If not, when will BLM finalize its commitment to the study?**

Answer: BLM agreed to participate in the study, but is currently reviewing its priorities to determine the extent of its fiscal participation. Each of the four agencies is to contribute $70,000 to fund Phase I (the FY 1996 portion of the study) and $105,000 to fund Phase II (the FY 1997 portion). BLM expects to make a decision on the amount it can fund the study soon.

RECREATION

Question: **By law BLM lands are managed for multiple-use. What are the economic returns from the management of the public lands under your jurisdiction?**

Answer: In 1994, the last year that data was available, recreationists enjoying the public lands provided $3.3 billion in travel-related expenditures and all subsequently induced sales. To put this in perspective, this is equivalent to about 40 percent of expenditures related to visits to National Parks. BLM-managed lands can, therefore, help meet some of the demands that popular National Parks are unable to satisfy. On the employment side, over 155,000 persons worked in the recreational industry on BLM administered lands. These persons also pay sales, income and property taxes and help to sustain local economies.

Question: **What level of receipts are you generating, and how are these receipts allocated?**

Answer: The BLM collected $2.6 million in recreation receipts in FY 1995. These receipts are deposited in a Treasury account and can be appropriated back to BLM in the subsequent years appropriation. Once appropriated these receipts are allocated back to the field office where they were generated to be used for operational and maintenance purposes on site.

Question: **BLM can keep a portion of the receipts that are generated from mineral leasing. Do these receipts cover the cost of administering the leases?**

Answer: BLM is without authority to keep any of the receipts generated from mineral leasing. All of these receipts are deposited into the U.S. Treasury's General Fund.

Question: **Recreational activities in the West have grown substantially over the last few years. What is BLM doing to meet this increased demand?**

Answer: According to the latest figures recreational activities on public lands are increasing about 2 percent per year which equates to about 66 million visits.

BLM provides quality outdoor recreational opportunities that encourage the freedom to pursue unstructured activities that result in personal responsibility to respect the resource and other users. This results in each field office developing their own site-specific resource "niche" For example:

- Cave management in New Mexico

- Trail management in Colorado
- Mountain biking in Utah
- Vehicle exploring and Off-Highway-Vehicle events in Nevada

Due to projected limited appropriations, BLM generally develops facilities as staging areas to these resources and not as attractions in themselves. BLM works closely with State Divisions of Tourism and local communities to market their niche and to ensure the fully array of resource use opportunities. Many of these relationships result in the development of strong multi-agency partnerships, (i.e. CURES - Coalition of United Recreation in the Eastern Sierras. The Coalition received an award as the "Best Customer Services Program" from the California Tourism Board. In Arizona, the BLM has played an instrumental role in the establishment of the Arizona Council for Enhancing Recreation and Tourism. The Council worked with the Navaho Nation to improve communication on travel and tourism.) BLM continues to work with such partners as Tread Lightly and Leave No Trace.

The 1997 budget request proposes both internal shifts and funding increases to better enable BLM to meet the growing recreational demand. In addition to the funding increase, BLM directs a significant portion of funding towards challenge cost share projects where non-Federal matches can be as high as 5 to one. Volunteers contribute about $6 million in service annually which increases BLM's buying power by approximately 20%.

Question: **The Committee has supported the use of recreation fees for the maintenance and improvement of recreation sites where fees are collected. What are your doing to implement this policy?**

Answer: Recreation fees are typically directed back to the office where the fees were collected. BLM's policy is to spend these funds on fee site maintenance, operations, and/or customer services directly related to the site were they were collected. Field offices have the flexibility to direct a greater share of the funds to a specific fee site on any one year but over a 3 to 5 year period fee expenditures and collections should equalize.

Question: **What are the publics attitude about paying recreation fees on public lands?**

Answer: The recreating public generally supports recreation fees as long as they know the funds are going to be used by the agency for management of the site where the fees were collected.

Question: **Does the Recreation Demonstration Pilot Project help you accomplish your objectives?**

Answer: BLM is supportive of the intent of the Recreation Demonstration Pilots because it expands the Bureau's authority to collect fees at visitor centers. The pilots also encourages BLM managers to be more creative and innovative in the management of the entire recreation program. Because recreation fees on public lands is a relatively new concept, BLM has been cautious in order to establish support from its users. In order to prepare for the Recreation Demonstration Pilot BLM is working with an interagency group to develop marketing strategies.

ALMRS

Last year the Committee indicated that BLM should "use funding provided in 1996 to finish the development of the system, finish data collection and conversion efforts, install ALMRS at the pilot sites, and thoroughly test, verify, and validate that ALMRS operates as specified and as needed by the Bureau."

Question: **What is the current status of the project?**

Answer: ALMRS implementation schedule has pilot testing in New Mexico being conducted in May and full implementation testing in New Mexico beginning in September. Based on the testing results, BLM will order the necessary upgrades on October 1, 1996, and in February of 1997 start the upgrade and installation of ALMRS on three states at a time.

Question: **When will the project be completed?**

Answer: Full implementation of all sites will conclude in July 1997.

Question: **What benefits are expected when ALMRS is in place?**

Answer: We are providing the ability to more efficiently handle BLM's land and mineral workload and public service and providing the foundation for other uses such as GIS applications. With deployment, the Bureau will have established a sound platform for the continuing automation of BLM's business processes, which was our most important objective.

Question: **Will ALMRS be useful to other agencies or to others outside of the Federal establishment?**

Answer: The biggest winners in the ALMRS/Modernization effort will not be the BLM or the Federal Government, but the counties and states in the American West. Pilot efforts with counties (i.e., McKinley, New

Mexico) prove that automation of land ownership information benefits counties in the daily operation of their police, fire, and emergency services; their surveying, road location and maintenance activities; and their voter registration and their taxation responsibilities. BLM has already demonstrated increased efficiency and savings for the oil and gas industry during our pilot tests in New Mexico. ALMRS will substantially increase the Bureau's efficiency and level of customer service. Taking the steps to do a second release of ALMRS and provide the upgrades for major GIS activities will promote the health of the land and all the renewable resources that we manage for the continued productivity of the public lands. The BLM's system is regarded as the "generic ALMRS" for the Department of Interior. The Bureau of Indian Affairs (BIA) is now deciding just how they will use ALMRS to meet their needs. It is a part of their FY97 budget.

Question: **The Committee also requested a report on the Bureau's testing, verification, and validation, as well as certification that ALMRS performs accurately and effectively. What independent verification is there of the system's operating capability?**

Answer: Mitretek Corp., our independent contractor, is roughly in the middle stages of verifying and validating ALMRS/Modernization against 800 evaluation criteria. Mitretek's Preliminary Assessment Report (April 1, 1996) of their ongoing evaluation efforts is good. This report will be forwarded to Congress directly. Of the completed analysis:

- 29% criteria are rated "satisfactory,"
  - 32% are expected to be completed "satisfactorily,"
  - 14% are "partially satisfactory"
  - Less than 1% are expected to be unsatisfactory,
- Less than 2% are not expected to perform satisfactorily.
- Approximately 23% have yet to be assessed.

We are working diligently on those items which are not yet rated satisfactory. Based on completed testing and evaluation to date, ALMRS will function as stipulated. By September, Mitretek will complete an independent Operational Assessment Test and Evaluation in New Mexico to determine if ALMRS is ready for deployment.

FIREFIGHTING

Question: **The Committee is concerned that the growing cost of fighting fires is due in part to fire suppression tactics that are not commensurate with the resources protected and to high levels of fuels in many areas. The**

Committee has urged the agencies to undertake efforts to reduce fuel loads through prescribed fire or other means as a method to reduce future fire suppression costs and to improve the health of the lands and resources. What efforts have been taken along these lines?

Answer: The Federal Wildland Fire Management Policy and Program Review, which sets policy direction from both the Secretary of the Interior and Secretary of Agriculture, identifies the need to integrate the fire program into land management objectives. The principles and policies in the Review emphasize risk management and fire management activities that are economically viable and that recognize the values to be protected. As a result of the Secretarial direction, fire is to be treated as part of the critical natural process and will be reintroduced into the ecosystem using the best available science. All burnable vegetation will have an approved fire management plan and agencies will work in concert to apply fire to the land across boundaries but ensuring for the safety for fire fighters and the public.

Continued efforts in research are providing valuable information in the areas of fire ecology, fire effects, smoke management, and forest health and provide a sound scientific basis for the integration of wildland fire into land-use and resource management. Federal agencies have recognized that there is a need for a compatible fire management planning system that recognizes both fire use and fire protection as inherent parts of natural resource management. Efforts are underway to create a system for coordination and cooperation among land managers and regulators that explores options within existing laws to allow for the use of fire to achieve goals of ecosystem health while at the same time protecting individual components of the environment, human health, and safety. The development of interagency prescribed fire teams to manage natural and management ignited fires will allow for safe efficient use of fire on public lands.

Question: **You have requested an additional $12 million for firefighting while the Forest Service request is maintained at the FY 1996 conference level. What is the rationale for this increase and how will these funds be used?**

Answer: Fire suppression operations funding is based upon the average suppression costs for the last 10 years. The $12 million increase raises the funding level to 93% of the 10 years' average but is not adjusted for inflation.

Question: **Between 1995 and 1996 Preparedness and Fire Use increased by about $16 million, and your 1997 request proposes an additional $9.2 million. What is the rationale for these increases?**

Answer: In 1996 the "Most Efficient Level" (MEL) of funding concept was adopted as the method to develop the Interior wildland fire management program funding level. MEL represents that funding necessary to cover planned interagency fire staffing, fire facilities, and equipment in providing the most cost efficient, technically effective fire management program that meets resource objectives, and minimizes costs of suppression and resource damages associated with wildfires. Maintaining the ecological role of fire is an essential element in the MEL concept. It involves reducing unnatural fuel buildups and maintaining the diversity and stability of the lands, which reduces the risk and impacts from unnatural wildfire conflagrations. MEL calculations are not constant due to changing resource objectives, values to be protected, land acquisitions, costs associated with the wildland/urban interface, increasing human caused fire occurrence associated with population growth, and continued hazardous fuel buildups.

According to the fire planning analyses by the four bureau, funding for preparedness and fire use in 1995 was only 76 percent of MEL. The $16 million increase for 1996 raises MEL funding from 76% to 84 %. Based upon a 1993 comprehensive survey of the condition of wildland fire facilities a twenty year program was developed for the renovation and construction of new facilities needed for protection of health and safety and improving efficiencies and effectiveness. Included in the additional $9.2 million request in 1997 is $5 million for this program. The remaining increase just maintains funding at 84% of MEL. The most efficient level of funding does not remain constant due to changing resource objectives, values to be protected, land acquisition, costs associated with the wildland urban interface, increasing human caused fire occurrence associated with population growth, and continued hazardous fuel buildups.

Question: **Provide a table showing the costs of the fire program over the past 10 years.**

Answer: Please see Attachment I.

Attachment I

Total Fire Obligations - Department of the Interior

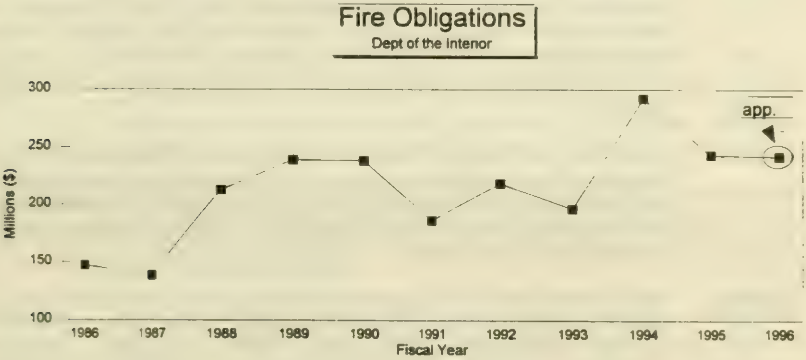
FY	Total ($000)
1986	147,183 #
1987	138,263 #
1988	213,037 #
1989	239,100 #
1990	238,284 *
1991	186,159 *
1992	218,693 *
1993	196,442 *
1994	292,221 *
1995	243,137 *
1996	241,908 +

includes fire management, preparedness, & suppression only

* includes fire management, preparedness, suppression, rehabilitation & reimburseable

+ Appropriated Amount. Includes fire management, preparedness, suppression, rehabilitation & reimburseable

All obligations are real dollars - not adjusted for inflation.
Effective in FY 1990, two unique appropriations were established for the Dept's fire program. And in FY 1997, the Budget Justifications proposes to combine both appropriations into one - Wildland Fire Management.



Question: **There has been an increasing tendency for people to acquire a getaway in the woods, hills, or mountains. This has resulted in extending the urban-forest interface well away from the traditional urban centers. How has this transition affected not only the method of suppressing fire, the strategy in fire suppression, and the costs associated with wildland fire suppression?**

Answer: Nearly every State has experienced wildland/urban intermix losses from New Jersey to the Carolinas and from Alaska to California. It is estimated that in 1994 nearly $300 million of Federal wildland suppression dollars were spent in protecting the wildland/urban intermix. A traditional suppression tactic, burning out large areas in front of the fire using geographic features such as ridges, rock slides and rivers as anchors, often cannot be used safely and effectively, because of the frequency of homes and other developments scattered throughout the wildlands.

With limited amounts of money, time, equipment, and personnel, a fire burning in the intermix currently demands the protection of scattered structures at the sacrifice of natural resources. Fire protection in the intermix is complex and barriers must be overcome. These barriers include legal mandates, zoning regulations, fire and building codes, basic fire protection infrastructure, insurance/fire protection grading and rating systems, environmental concerns, and Fire protection Agreements. The federal agencies along with the Western Governors (Western Governors Association) are working together to address these barriers. Federal wildland firefighter response in the intermix creates a safety concern by spreading them thin and placing them in situations for which they may not be adequately trained or equipped.

Question: **Assuming that when a structure (domicile) is threatened by an advancing fire the efforts are redoubled to save the structure, are there any attempts made to recover the cost of the suppression effort either from the homeowner or their indemnifier? If these expenses are not recouped, why aren't they?**

Answer: We do collect the cost of suppression when human caused fires start on private or federal lands. While Federal agencies may have authority to seek reimbursement for fire suppression services on private lands, the probability of successful collection is extremely low, due to tort laws, State laws, and questions of liability and negligence. A process called "Cost Apportionment" is utilized to share costs associated with multi-jurisdictional wildfire incidents. Many state and local governments are playing a greater roll in the protection of urban interface communities adjacent to Federal protection areas.

Question: **Clearly fire suppression efforts are extremely expensive since they operate on a minimal risk basis. Has any effort been made to attempt to identify situations where an acceptable level of risk is appropriate, thus dictating a less aggressive effort at fire suppression?**

Answer: The Federal Wildland Fire Management Policy and Program Review identifies the need to utilize prescribed fire to reduce the potential of catastrophic fires and better manage wildfires by matching suppression efforts that best meet resource planning objectives. The principles, policies, and recommendations in the Review include direction for managers to evaluate all of the potential consequences of fire management and suppression decisions, including the values that are to be protected (including resources and structures). Managers on the ground will be responsible and accountable for planning activities that recognize risks and for fire-by-fire suppression decisions that appropriately balance risks and costs.

Fire Management Plans are in place to determine a range of appropriate management and suppression actions, which are consistent with values at risk, and provide for safety and cost-effectiveness. Once a fire escapes initial attack, an Escaped Fire Situation Analysis (EFSA), is developed to determine an appropriate suppression strategy for a particular situation. The strategy is evaluated with criteria which consider anticipated suppression costs, resource impacts, and environmental, social, and political considerations. Where fires occur in highly developed areas or during severe weather, immediate control by aggressive initial attack and prompt suppression is required to protect life and other values. Where there are barriers to stop the spread of fire, strategies may be employed that can reduce suppression costs. Where fires occur in highly developed areas or during severe weather, immediate control by aggressive initial attack and prompt suppression is required to protect life and other values.

Question: **As a fire increases in size (class), fire bosses (Incident Commanders) are required to have different levels of experience and training. What training requirements are there at the different ratings of fire bosses (Incident Commanders)?**

Answer: There are different levels of training and experience requirements, the hours and years are approximate, actual time varies by individual. They are:

- *Initial Attack Incident Commander* - These are small incidents of relatively simple complexity that are handled with very few firefighting resources. The incident normally last only one day. The training on average is 378 hours and would take 5 years of experience.

- *Extended Attack Incident Commander* - Initial responses with a large number of resources or an extended attack. These fires may last 2 or more days. The training on average is 536 hours and would take 6 years of experience.
- *Incident Commander Type 2* -This is the first level at which most of the fire organization is activated. The incident requires a large organization and lasts for many days. Number of firefighters may be between 200 and 500. These fires often last 2 or more days. The training on average is 742 hours and would take 12 years of experience.
- *Incident Commander Type 1* -This level of incident is characterized by high complexity, 500 to 1,000 to over 3, 000 personnel. This is a large, very complex incident requiring highly qualified personnel. These fires always last many days. The training on average is 822 hours and would take 16 years of experience.
- *Area Command* - The area command organization is established when an incident is so large that it must be subdivided and managed as two or more incidents, or when multiple incidents having separate Incident Commanders must be managed. These fires may last several weeks. The training on average is 870 hours and would take 22 years of experience.

Question: **Current funding for fire suppression efforts is at a floating 10 year average. This assumes that the only variant is related to weather patterns. What other dynamic factors have taken place over the last 10 years that might affect the potential for a wildland fire, either increase or decrease the risk? If any of these are adverse, are these other causative factors manageable, and if so, what actions are being taken to minimize their impacts?**

Answer: A major demographic shift has occurred throughout the country resulting in a large increase in wildland urban interface risks. Numbers of dwellings and structures located in isolated or semi-rural settings has dramatically increased. This leads to more human caused fires and an increased degree of difficulty in suppression efforts.

The long term decline in forest/ecosystem health and the resultant fuel accumulation has resulted in large, damaging and dangerous fires which are difficult to control and suppress. The contributing factors have been both cultural - a policy of complete fire exclusion, and natural - droughts, insects and succession. The recently completed Federal Wildland Fire Management Policy and Program Review identifies these issues and outlines 83 actions the Federal wildland fire agencies should take to address the manageable concerns along with increased emphasis on firefighter safety.

Question: **Please explain the role and responsibility of other non-Federal**

cooperating agencies in the overall fire suppression effort. What level of manpower, material and fiscal resources do they contribute to the effort? How are the cooperative efforts synchronized?

Answer: State land management agencies and local fire departments provide the bulk of protection and suppression activities on nonfederal owned lands. In the east and southeast they are the major players. Some federal funding is grant based, but the majority is from state and local taxes. The National Wildfire Coordinating Group oversees and coordinates the combined efforts of all wildland fire entities, both federal and nonfederal. They provide the umbrella for training courses, certifications, equipment development and research. Geographic Coordination Centers provide logistical and operational interface for all types of resources, insuring that the closest force concept is employed.

Cooperative agreements exist at all levels to ensure coordination occurs between entities. Dispatch facilities are frequently staffed by mixed agencies to provide a seamless interface. Private contractors contribute a large number of resources to the firefighting effort. They include firefighters and overhead, and equipment and services such as airtankers, engines, tenders, caterers. All are assimilated into the interagency dispatch system. States provide fire crews, engines and overhead for dispatch to local and federal wildfires through such programs as correctional institutes, summer hires and regular employees. Native American fire crews are organized in the southwest and Alaska providing thousands of firefighters annually.

Question: **What is the proposed balance between presuppression and suppression efforts? If a more aggressive presuppression effort were made, how long would it take until it started to reduce the level of effort required in suppression activities?**

Answer: The concept of Most Efficient Level of funding and staffing expresses what the Interior Bureaus have derived to be the best balance between presuppression and suppression efforts. This derivation is based on an analysis of historical fire occurrence, weather trends, fuel loads and other factors.

A major tool in any increased presuppression effort must be prescribed fire for hazardous fuel reduction and ecosystem health. Prescribe fire can include both natural and management ignited fires. In some cases, alternative methods of fuel reduction may be necessary because of safety or health concerns. After nearly a century of fire exclusion it is likely to require decades to fully reintegrate fire into the ecological role it played prior to modern times. Public education and support will be necessary to tolerate an increased level of smoke in natural areas and an understanding that fire impacted ecosystems are not dead ecosystems.

Question: **If presuppression activities were pursued more aggressively, would they not provide some employment stability during the non-wildland fire portion of the year, thus benefitting not only the resources but also the local communities?**

Answer: The answer is emphatically "YES." Longer term employees tend to come back year after year, reducing the costs of hiring and training, and significantly reducing the costs of unemployment. Longer term employees possess more skills and experience and can perform more safely and effectively. Longer term employees would enhance year around prevention activities because they possess more training, allowing for the use of new technologies, science, more complex suppression tactics, strategies and equipment, as well as the capability to increase prescribed fire activities.

LAND RESOURCES

Question: **You are requesting an additional $1 million for the wild horse and burro program. Are you being successful in controlling the size of wild horse and burro herds?**

Answer: Between FY 93 and FY 95 BLM removed and adopted out approximately 25,700 wild horses and burros. This reduced the population on public lands from about 54,800 animals to about 43,600. The FY 96 cost target of $14.845 for the Wild Horse and Burro Program is not sufficient to remove the annual foal crop and will result in a population increase. The request for an additional $1 million will allow BLM to slowly reduce the population of wild horse and burros on the public lands and continue to manage toward their appropriate management levels.

Question: **What ecological impact are these animals having on riparian areas, wild animal populations, and the condition of rangeland plant communities?**

Answer: Wild horse and burro populations that are at or near their appropriate management levels have no negative ecological impacts on the resources. Until each herd management area is at its appropriate management level, there will continue to be negative impacts on riparian areas, wildlife populations, and the condition of rangeland plant communities.

Question: **How much habitat is being lost on BLM lands as a result of invasive exotic plants?**

Answer: Noxious weeds are increasing at about 14% per year or 2,300 acres per day. Approximately 385,000 acres are infested with noxious weeds. The BLM is trying to use integrated weed management wherever possible. In the large infested areas, the BLM is trying to establish biological control agents and is using sheep/goats as biological control agents. It is also using chemical/cultural techniques around perimeters and small infested areas.

The question of lost habitat can be problematic. In some cases, there is loss of opportunity because of recreational opportunities lost or decreases in quality. In other cases, some wildlife habitat is being negatively impacted. In many cases, there is a loss of livestock forage being produced and the use of an area is shifted elsewhere. In most cases, however, use of an area is shifted rather than lost.

Question: **Explain the efforts that are underway to control invasive plants on public lands.**

Answer: $2.7 million is planned for FY 97. Four cooperative demonstration weed management areas are underway in Montana, Utah, Idaho, and Oregon. The intent is to highlight what can be accomplished through cooperative efforts and partnerships. Each state is implementing pilot weed management projects to demonstrate a wide variety of strategies to improve weed management capabilities including education. The most effective and economical strategies of prevention, education, detection and quick control of new infestations are being emphasized to protect the vast majority of the land that is not yet significantly infested with invasive plants. Cooperative integrated weed management programs, which include all phases of weed management, are being established. In addition, the continuation of currently established weed management areas as well as the development of new areas is underway.

Implementation of the many faceted action plan, "Partners Against Weeds," describes seven goals, including: Prevention and Detection; Education and Awareness; Inventory; Planning; Integrated Weed Management; Coordination; and Monitoring, Evaluation, Research and Technology Transfer. Consequently, the BLM has embarked on a program that makes use of an increased partnering effort in all of the above goals to improve our control of invasive plants.

Question: **How are you integrating your efforts with other Federal agencies and the states?**

Answer: The BLM is involved in the following initiatives:

- BLM initiated the 1995 "Alien Plant Invasions: Increasing Deterioration of Rangeland Ecosystem Health" Symposium which was co-sponsored by six federal agencies and five nongovernmental organizations.
- BLM just completed the national "Partners Against Weeds" action plan which repeatedly emphasizes cooperation and partnerships with other federal and state agencies.
- Professional weed management papers, initiated by BLM, have recently been co-authored with the BLM, the FS, the NPS, and university people.
- Colorado and California have recently executed, and Oregon is preparing, all agency MOUs to enhance the effectiveness of weed management in those states.
- In Montana, the BLM has a Memorandum of Understanding between the Forest Service and the Montana Department of Agriculture for integrated weed management. The BLM continues to work with the Bureau of Reclamation, the Bureau of Indian Affairs, etc., in integrated weed management. The district and resource areas also have cooperative agreements with the county weed districts on integrated weed management.
- In South Dakota, there is a Memorandum of Understanding between all federal agencies, the South Dakota Department of Agriculture, and the South Dakota Weed and Pest Control Commission on integrated weed management. The South Dakota Resource Area Office works with the individual county weed districts on integrated weed management.
- In North Dakota, the BLM works with individual county weed districts, the North Dakota Department of Agriculture, the Forest Service, the Agriculture Research Service, and others. At the present time we do not have a Memorandum of Understanding in effect for integrated weed management.
- On the national level, the BLM is an active player in the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW). This seventeen member interagency committee meets quarterly to exchange information, increase the level of awareness on the national weed problem, and work to increase our collective efficiencies in weed management.
- In the fall and winter of 1995, the BLM was also instrumental in hosting two weed summits; held in Denver, Colorado, and Fort Lauderdale, Florida, respectively.
- At the local and state levels, the BLM is strongly encouraging the cooperative approach to weed management. Indeed, such an approach

is a necessary aspect of the demonstration areas where integrated weed management is being demonstrated.

- The use of local weed boards, through the county governments, has long been a part of our weed management program.

Question: **Are BLM wilderness areas being damaged by invasive plants? If so, how so regulations designed to protect wilderness affect your ability to control invasive exotics that are destroying wilderness areas?**

Answer: Some BLM Wilderness Study Areas (WSAs) are already seriously damaged by invasive plants, and many more are being invaded. Policy dictates that WSAs be managed so that wilderness values are not impaired. All the integrated weed management tools are available for use in BLM wilderness and WSAs. However, special precautions must be taken to avoid degradation of wilderness values. Accordingly, the "minimum tool" concept requires the minimum necessary tools, equipment, or structures to accomplish the wilderness management objectives. (In this case, the objective is: "the primeval character is retained, and its natural conditions are preserved and that ecological processes function naturally.")

BLM regulations affects the Bureau's weed management efforts by directing the use of minimal mechanized equipment as necessary. As such, BLM is not precluded from the use of hand-powered herbicide spray equipment, where necessary, the use of sheep or goats as biological control agents, or the use of hand-grubbing as a control method. However, BLM wilderness areas are becoming infested with noxious weeds just like other BLM lands. The BLM has covered the treatment of noxious weeds in wilderness areas through integrated weed management programs in both the Northwest Area Noxious Weed Programs FEIS and SEIS and the Vegetation Treatment on BLM Lands in the Thirteen Western States FEIS.

Question: **You are requesting an additional $4 million for stormwater pollution control from abandoned mines. Was this a function that was formerly handled by the Bureau of Mines or some other agency?**

Answer: No. This program represents the implementation phase of a program that was funded within base for the initial planning phases. Water quality sampling, other AML data collection, and Feasibility studies to focus AML cleanup on BLM lands have been underway in Colorado and Montana for several years. These efforts will continue in 1996.

Question: **Is the funding request for the stormwater pollution initiative a down payment for a program that could run into the hundreds of millions of dollars? If so, what to buy with only $4 million?**

Answer: No. The work is intended to show that a risk-based, watershed approach to AML cleanup is cost effective when we work in partnership with State officials. State agencies in Colorado and Montana are highly interested in working with Federal agencies to make this effort feasible and this has the written support of both Governors and the Western Governors Association. It is intended to show that BLM can accomplish some meaningful AML cleanup with very limited funding through working closely with other stakeholders. Over time and with modest investments, it may be possible to address the most seriously polluted watersheds on the public lands. Only a small percentage of AML sites are seriously impairing water quality.

Question: **Will BLM allocate these funds to priority projects or will this money simply be divided up among the state offices?**

Answer: The funds will be allocated to priority actions in Colorado and Montana and not by a *pro-rata* distribution to State Offices. Close collaboration with State Agencies and other stakeholders is an integral aspect of the approach. Greatest efficiency in accomplishing AML cleanup will come from integrated efforts and building on cooperative on-going work in Colorado and Montana, BLM will use the FY97 funds there to develop the process and to do needed AML remediation.

Question: **Will you attempt to allocate funds based on environmental risks posed by runoff at different mine locations?**

Answer: Funds will be allocated to specific projects based on a watershed approach. The order in which watersheds and sites within watersheds would be addressed will be determined in each of the two states by agreements on priorities among Federal and state land managers on the risk to water quality and water users from abandoned mines. Data from many sources—the USGS, EPA, and other Federal and state agencies—will be used in making these determinations.

Question: **Is this money expressly for controlling stormwater runoff, or will it also be used to address pollution problems from groundwater flowing out of mines, or streams that pick up pollutants as they move through areas with tailings?**

Answer: We intend that the projects will address pollution resulting from stormwater runoff. However, we recognize that the differentiation between actual stormwater runoff and runoff from tailings areas, for example, may be difficult and subject to interpretation.

Question: **Will headquarters take any of this stormwater money to cover overhead?**

Answer: No. This money will be directed to project work only. We are not anticipating any additional overhead that is not already covered by our base program. No new positions will be established with these proposed funds.

Question: **As grazing fees go down, how is this affecting resources available in the Range Betterment Fund, and what are the consequences for projects designed to maintain or improve the range?**

Answer: There will be about a $1.3 million decrease in the Range Betterment Fund and this will reduce the BLM's ability to restore high priority riparian areas and leverage funds through partnerships.

Question: **Does BLM have a role in controlling whirling disease in western rivers? If so, what is that role?**

Answer: Whirling disease was introduced into the United States in the 1950s and has spread throughout the country in approximately 40 years. Fish and wildlife management on public lands has traditionally been a role of the state in which the public lands occur. BLM is working with state fish and wildlife agencies, the USDA Forest Service and US Fish and Wildlife Service, and other interested parties to determine the effects of whirling disease on aquatic resources. BLM's role in these activities involves providing expert technical advice, coordinating activities, and ultimately supporting the state fish and game decisions on appropriate steps to control whirling disease. When management decisions are made, BLM will need adequate funding to assure implementation of whatever measures are determined to be necessary in controlling whirling disease and coordinating efforts with FS and other management entities.

CHALLENGE COST SHARE

Question: **How much money is directed to on-the-ground projects as opposed to administrative overhead for challenge cost share projects?**

Answer: There are several types of "overhead" charges to BLM State, District, and Resource Area Office CCS targets. A percentage of these funds are assessed off the top for paying statewide labor, operations, and maintenance costs. In some cases, labor costs involved in planning and implementing Challenge Cost Share projects are charged to CCS targets at the ground level. In the case that BLM contracts out the CCS project, or holds the money and pays the bills for a project, then the regular 18 percent overhead may be assessed, generally by the State Office. However, the State Director may, and often does, waive these overhead charges at the request of field offices on behalf of partners. Some States (*e.g.* Idaho) charge no labor to Challenge Cost Share allocations at all to maximize leveraging power. BLM's CCS funds disbursed through the National Fish and Wildlife Foundation are only subject to BLM overhead in the case where BLM contracts the project, or holds the money and pays the bills.

Question: **What are the BLM's priorities for challenge cost share projects by activity in FY 1997?**

Answer: Our current policy is to let our field offices set their own priorities consistent with overall Congressional and Departmental direction for the bulk of challenge cost share. BLM selects projects based on the highest priority work with the high contribution of non-Federal dollars. Projects typically emphasize cooperative work with local communities to reduce resource management conflicts, promoting rural economic development, and maintenance of economically important resources. Emphasis also includes continued funding of individual on-the-ground "Seeking Common Ground" projects, developing Watchable Wildlife sites, and improved recreational access (*e.g.* boat ramps, road work).

Question: **Does BLM enter into challenge cost share projects with private landowners? If so, what has been the response to these cooperative efforts?**

Answer: Yes. BLM has private landowners as CCS partners. Most of the on-the-ground projects with private land owners are carried out on BLM lands. Projects on private lands can be funded by BLM only in special instances where there is direct public benefit and where a Coordinated Resource Management plan, maintenance easement, or cooperative agreement is in place to protect Federal investments.

The response to these efforts has been favorable in cases where we were able to participate in the project. Typically, negative feedback results from the Bureau's inability to participate in efforts as a result of the lack of a Coordinated Resource Management plan, maintenance easement, or cooperative agreement that protects the Federal investment.

Question: **Your request for additional funding for Fisheries Management ($1 million), Cultural Resource Management ($1 million), Recreation**

Management ($1.5 million), Riparian Management ($1 million), and Wildlife Management ($1 million) will all be accomplished by using the challenge cost share program. Since challenge cost share funding is leveraged, what do you estimate the total program level for these programs will be?

Answer: Challenge cost share work is generally accomplished on a 1 to 1 basis, but has been as high as 4 to 1 non-Federal and Federal funding. In 1995, BLM received over $20 million in Challenge cost share contributions from groups such as Western State Wildlife agencies, Trout Unlimited, Quail Unlimited, Rocky Mountain Elk Foundation, the Safari Club, the Issak Walton League and many others. It is fair to assume that BLM will at least double it's money under the challenge cost share program in 1997 and anticipates it will be closer to 2 to 1 non-Federal to Federal.

GRAZING REGULATIONS

Question: **What have been the response by the industry to your new grazing regulations?**

Answer: Industry response has been largely favorable. Concerns of the permittees or lessees who graze public lands administered by the Bureau of Land Management are as follows:

- The new surcharge for pasturing another person's livestock under the preference holders permit or lease.
- Restriction of exchange of use to private lands within the boundaries of the permittees allotment.
- Public involvement in issuing permits or leases, transfers, and authorizations of temporary grazing use.
- Some permittees/lessees believe that the ownership restrictions for range improvements on public lands are harmful and unfair.
- Permittees want sole ownership of water rights on public lands.

Question: **Are the Resource Advisory Councils in place and operating? How do these resource advisory councils differ from the grazing boards?**

Answer: Yes, the Resource Advisory Councils are in place and operating. Grazing advisory boards (GABs) were organized in each grazing district to give the BLM fullest information and advice on livestock grazing and range management issues. GABs were composed of not less than five nor more than twelve members exclusive of the wildlife representatives. Except for the wildlife representative the stockmen in that grazing district recommended members to the Secretary. Resource Advisory Councils (RACs) were set up to provide advice and recommendations to BLM on the management of all resources on the public lands (not just livestock grazing). They are comprised of a balanced membership of commodity interests, conservation interests, and the general public concerned with the management of the public lands as required by the Federal Land Policy and Management Act.

Question: What level of funding is included in the request for the councils?

Answer: $50,000/RAC

TIMBER SALES

Question: Your budget requests indicates a total volume harvested of 113 million board feet, yet only indicates a reforestation of 1,500 acres. Does the 1,500 acres represent the acres from which the timber was harvested, or is this acreage from areas where previous reforestation efforts have failed??

Answer: BLM plans to offer 250.5 Million Board Feet (MMBF) in FY 1996, distributed as follows:

167.5 MMBF from the Forest Plan area
83.0 MMBF from the Public Domain
250.5 MMBF total

Units which are harvested are not planted for 1-2 years to allow post-harvest site preparation prior to planting. The acres to be reforested in FY 1997 are primarily initial planting, not replanting or interplanting.

Question: Why is there such a large increase in Forest Stand Improvement Acres from those projected in 1996 and 1997 compared to those actually achieved in FY 1995. Please provide actual figures for FSI for the past 5 years.

Answer: Acres reported for stand treatment include acres thinned or otherwise treated to improve forest health. Stand improvement figures for FY 1991-93 including site preparation and protection, fertilization, release, and precommercial thinning, are as follows:

FY 91:	67,286 acres
FY 92:	63,648 acres
FY 93:	65,237 acres

A different reporting format was used for FY 1994 and 1995. Restrictions of the President's Forest Plan and reductions in funding outside of W. Oregon resulted in reductions in precommercial thinnings, etc.

Question: **For the 45 million acres of forest lands you show a salvage sale volume of only 45 MMBF. This figure seems to be an unrealistically low salvage level for the acreage involved. Are there other contributing factors limiting the salvage volume harvested?**

Answer: Of the 47 million acres of forests and woodlands managed by BLM, 11 million acres are considered productive forest lands:

7 million in Alaska (Public Domain lands);
2 million in W. Oregon (O&C lands);
2 million in the rest of the West (Public Domain lands).

The remaining 36 million acres are considered non-productive forest lands but do provide a variety of other forest products such as fuelwood, posts, poles, pinyon nuts, and Christmas trees. BLM initiated an accelerated salvage sale program in FY 1995 (77 MMBF offered). The planned salvage volume for FY 1996 is 88 MMBF. The planned salvage volume for FY 1997 of 38 MMBF will take care of all currently available volume. There are no current significant factors limiting salvage harvest outside of Alaska; in Alaska, the is little market demand for salvage timber from the interior.

Question: **Please give a listing of the volume sold by sale size?**

Answer: Please see attachment II.

Attachment II

BLM FY 1994 TIMBER SALES - WESTERN OREGON

BLM ADVERTISED SALES - FY 1994

DISTRICT	SALE NAME	SALE VOL. (MBF)	SALE ACRES
SALEM	FAA HAZARD TREE	308.0	10.4
	LOONEY CREEK THIN	660.0	70.0
EUGENE	CAT TRACKS	472.0	45.0
ROSEBURG	BROKEN THUMB THINNING	418.0	22.0
	ROUND AND ABOUT SALVAGE	97.0	9.0
	5900 - GOLD CHIMNEY SALVAGE	89.0	8.0
	5900 - HIGH-TAIL FIRE SALVAGE	80.0	5.0
MEDFORD	GOLDEN PANTHER THIN	2,645.0	226.0
	5900 RAMSEY FIRE SALVAGE	196.0	21.0
COOS BAY	GRAVEYARD THINNING	1,637.0	249.0
LAKEVIEW	SEC. 3 CHIP THIN	561.0	179.0

DISTRICT	SALE VOL. (MBF)	SALE ACRES
SALEM	968.0	80.4
EUGENE	472.0	45.0
ROSEBURG	684.0	44.0
MEDFORD	2,841.0	247.0
COOS BAY	1,637.0	249.0
LAKEVIEW	561.0	179.0
TOTALS	7,163.0	844.4

FY 94 ADVERTISED SALES	7 MMBF
FY 94 MISC. VOLUME	7 MMBF
FY 94 TOTAL SALE VOLUME	14 MMBF

BLM FY 1995 TIMBER SALES - WESTERN OREGON

BLM ADVERTISED SALES - FY 1995

DISTRICT	SALE NAME	SALE VOL. (MBF)	SALE ACRES
Lakeview	BRYANT EAGLE	266.0	288.0
	FROSTY 1	2,852.0	829.0
Salem	ALOHA HONEYGROVE	1,392.0	76.0
	CEDAR CREEK THINNING	1,623.0	114.0
	FROZEN ABIQUA	4,359.0	108.0
	GATES HILL ROAD WIDENING PROJECT	54.8	2.0
	JACKSON FIVE	6,020.0	117.0
	MULETAIL DENSITY MANAGEMENT	658.0	173.7
	NEW DOGMA	2,072.0	73.0
	SUPER HAMMER THINNING	3,977.0	210.0
Eugene	BATTLE EAST	3,540.0	58.0
	BEAR ALDER	1,557.0	63.0
	BOTTOMLINE	1,767.0	160.0
	BULMER CREEK THINNING	921.0	93.0
	ESCAPE HATCH	1,871.0	68.0
	GOWDY'S TUCKERED	1,082.0	93.0
	HILL & DALE	610.0	16.0
	OBEN TNOM	1,061.0	22.0
	PAR FIVE	1,290.0	47.0
	PETZOLD ROAD	1,625.0	40.0
	PREGO 4	1,099.0	28.0
	RIVER GRUB	2,018.0	53.0
Roseburg	HELLO FOLLEY	4,466.0	142.5
	LEAN LOUIS	7,316.0	210.0
	RIGHT VIEW	3,954.0	98.0
Medford	ANTI SYPHER	758.0	154.0
	CROOKED BUCK L	1,016.0	192.0
	FERRIS LANE	1,540.0	192.0
	HIGH FIVE	9,749.0	410.0
	LOW FIVE	4,011.0	318.0
	MOOSEHORN	164.0	42.0
	NOREAST	902.0	155.0
	PANTHER GAP	1,421.0	337.0
	PLUS TREE	158.0	34.0
	TUNNEL VISION	472.0	190.0
	5900 GPRA SALVAGE	2,041.0	737.0
	5900 HULL MOUNTAIN FIRE SALVAGE	4,261.0	975.0
	5900 SPRIGNETT FIRE SALVAGE	868.0	122.0
Coos Bay	BATEMAN & ROBIN	1,035.0	21.0
	CHOPPER ROCK THINNING	11,166.0	454.0
	DAMES DELIGHT	1,081.0	19.0
	FINAL SURPRISE	3,174.0	42.0
	HARRY'S ROAD THINNING	1,337.0	106.0
	LAST YANKEE	1,219.0	17.0
	LUCHSINGER THINNING	1,222.0	199.0
	LUTS BREAKOUT	411.0	12.0
	ROCK CREEK THINNING	3,268.0	273.0
	SIDEWINDER THINNING	1,237.0	109.0

DISTRICT	SALE VOL. (MBF)	SALE ACRES
Lakeview	3,118.0	1,117.0
Salem	20,155.8	873.7
Eugene	18,441.0	741.0
Roseburg	15,736.0	450.5
Medford	27,361.0	3,858.0
Coos Bay	25,150.0	1,252.0
TOTALS	109,961.8	8,292.2

FY 1995 ADVERTISED SALES	110 MMBF
FY 1995 "NO BID" SALES	10 MMBF
FY 1995 MISC. VOLUME	8 MMBF
TOTALS	128 MMBF

Question:	**Are the 45 million forested acres identified as under "management, development, and protection" being managed as a multiple use sustained yield forest? If so why is the harvest level and salvage so low?**
Answer:	Please see answer to #3 above.

WESTERN OREGON RESOURCE MANAGEMENT

Question:	**What is the current status of BLM's efforts on meeting its salvage target?**
Answer:	The BLM has every intention of meeting its FY 1996 salvage target of 88 MMBF. To date, 26.5 MMBF of salvage timber has been offered of which 26 MMBF has been sold; .5 MMBF went no bid. The BLM expects the pace of sales to increase later in the season once the snow levels recede.
Question:	**What is BLM doing relative to the so called 318 sales? Are these sales being awarded, or is BLM offering alternative timber to the purchases?**
Answer:	The BLM identified 44 sales containing approximately 212 MMBF as being subject to Section 2001 (k) of the Rescissions Act. The BLM has awarded all sales or portions of sales which do not contain nesting threatened or endangered bird species. Of the 212 MMBF, approximately 184 MMBF has been awarded, 21 MMBF are being considered for replacement volume and 7 MMBF are being processed for award.
Question:	**Of the 2,211,000 forested acres, 1,864,000 acres are not categorized as "old growth." Please provide a table indicating the distribution by age class of these non old growth acres.**
Answer:	Age classes of "non-old growth":

Age Class (years)	Acres
0-30	786,000
40-70	366,000
80-110	290,000
120-150	299,000
160-190	123,000

Question: **What is the type and status of the forest inventory method used for evaluating the entire forested acreage?**

Answer: The forested acreage was last inventoried in 1988 through the re-measurement of 5-Point Continuous Forest Inventory plots.

Question: **Has the forest inventory data been stratified to provide data on only the available harvestable acreage, and if so by age class?**

Answer: The forest inventory data has been stratified to provide age class information on the harvestable and non-harvestable acres.

Question: **On the remaining forested acres, old growth and non old growth, what does the forest inventory indicate the sustained yield to be?**

Answer: There has not been a calculation made to determine the sustainable level of harvest on the non-harvestable acres, nor can one be done readily. However, as an indication of potential capability, assuming the practices in place under the Management Framework Plans (MFP) in the 1980's which were less restrictive than those under the Northwest Forest Plan, approximately 80 percent of the forested land acre was harvestable, compared to approximately 22 percent under the Forest Plan. Under the MFPs the annual allowable sale quantity (ASQ) was 1,176 MMBF.

Question: **How many FTE are dedicated to the salvage sales effort and how many to the normal sales effort?**

Answer: 398 FTE are dedicated to the Forest Plan sales effort, all within the O&C appropriations, and 64 FTE are dedicated to the salvage sales effort.

Question: **How many acres have been designated for "ecological experimentation and social innovation." Are these areas currently forested with old growth timber, or second growth. Will the volume harvested from these experimental areas be in addition to the 211 MMBF under the commercial sale program.**

Answer: The acres designated for "ecological experimentation and social innovation" are referred to as Adaptive Management Areas under the Forest Plan. These areas are made up of all the possible age classes. These acres were included in the base for calculation of the 211 MMBF ASQ, therefore, harvest in the Adaptive Management Areas would be a part of the 211 MMBF. The President's Forest Plan has designated 59,000 acres as Adaptive Management Areas.

Question: **"The BLM will continue to plan other forest management initiative to**

enhance forest resources . . . to accomplish these objectives the BLM will begin reestablishing forests in riparian zones, promoting mixed conifer/hardwood stands, identifying and/or creating snags for cavity dwelling species, and leaving riparian buffers or through the placement of woody debris." If BLM is "beginning]" these practices what was done in the past to protect and enhance fish and wildlife habitat, stabilize soil, and minimize soil/debris incursion into streams?

Answer: The BLM has, in fact, been implementing these practices in the past. However, significant new information has been gleaned from monitoring and research studies on these practices. These studies have given the BLM valuable new science which is being used to modify these practices to be more effective, particularly at the watershed scale. In addition, new restoration dollars made available through Jobs in the Woods and Other Forest Resources in the O&C Appropriations are enabling us to accelerate ongoing restoration activities.

Question: **How much "green volume" is contained in the estimated 23 MMBF salvage volume for FY 1996?**

Answer: None.

Question: **How much volume was prepared for commercial sales in FY 1995 and FY 1996?**

Answer: In FY 1995, a total of 191.1 MMBF of timber was prepared for commercial sales; under the Forest Plan, 109.5 MMBF of green and 21 MMBF of salvage was prepared for sale, and under public domain forestry 4.2 MMBF of green 56.4 MMBF of salvage was prepared for sale. In FY 1996, a total of 250.5 MMBF of timber is expected to be offered for commercial sales; under the Forest Plan 152.5 MMBF of green and 15 MMBF of salvage will be offered, and under the public domain 10 MMBF of green and 73 MMBF of salvage will be offered.

Question: **With the reduction in acreage to managed on a sustained yield basis, why is it necessary to continue staffing at the existing level, should there not be a reduction associated with a lower volume of commercial sales and forest development/reforestation activities?**

Answer: Staffing levels cannot be reduced any further without causing reductions in work accomplishments. Staffing has already undergone reductions from normal attrition as well as from the buyout program, with the positions left unfilled. In fact, staffing is barely sufficient to accomplish the forestry workload (especially outside of W. Oregon). Meanwhile, the amount of effort to offer the same amount of output has increased because of new required analyses, more complex sale design and layout requirements, more acres required to offer the same volume, ongoing litigation, etc.

Question: **Specifically, why are 10 additional foresters necessary to "fill the pipeline" and how long will this staffing level be required?**

Answer: During FY 1995 through FY 1996 the current staffing level has been appropriate to produce the planned ASQ which has been increasing annually with the expectation of offering the full ASQ of 211 MMBF in FY 1997. These increases in ASQ have been possible as greater experience has been gained in preparing timber sales under the new Standards and Guidelines of the Northwest Forest Plan. For FY 1997 it is anticipated that 240 FTE are only sufficient to prepare the ASQ and not any additional sales for the purpose of refilling the pipeline. The 10 additional foresters are needed to participate in all phases of timber sale planning, preparation, and administration. This staffing level will be needed for the next several years at a minimum.

Question: **What functions will the additional 11 foresters in reforestation and forest development perform, that cannot be performed with the existing staff?**

Answer: The additional 11 foresters needed in Reforestation and Forest Development represent additional capability to accomplish the significant increases in treatment levels, most notably stand maintenance and precommercial thinning.

FOREST PLAN

Question: **You are requesting an additional $8.2 million for "jobs in the Woods." How many additional jobs will this create for displaced timber workers?**

Answer: BLM estimates that this increase in funding for "Jobs in the Woods" will generate approximately 205 additional job opportunities. In total, BLM estimates that 400 job opportunities will be created.

Question: **What projects will be undertaken by these workers on BLM lands?**

Answer: Projects undertaken are geared towards watershed restoration initiatives that restore impaired federal lands in targeted areas. Specific projects to be undertaken in 1997 include addressing road erosion and sedimentation to enhance water quality, fish habitat and fish passage to spawning grounds; riparian silviculture to enhance riparian diversity, community structure, and channel stability; stream channel restoration to desired aquatic habitat conditions; upland initiatives to improve hydrologic functions of impaired watersheds; and improving social economic needs by providing opportunities for recreation, and promoting values that enhance tourism industries and the creation of long term jobs.

Question: **The "Jobs in the Woods" program was designed to provide a funding bridge for displaced workers. How much longer will this program need to continue?**

Answer: The Memorandum of Understanding that covers Jobs-in-the-Woods extends through 1998.

Question: **Of the total funding provided for "Jobs in the Woods" what percentage actually goes to displaced workers and what percentage is retained by BLM for overhead costs?**

Answer: Approximately fifteen to eighteen percent is allocated for overhead which includes contract processing and administration with related equipment usage and supplies. The balance goes to efforts that assist displaced workers.

Question: **Doesn't the increase in salvage timber that is being harvested on BLM lands reduce the need for additional resources for the "jobs in the Woods" program?**

Answer: Not at this time. The President's Forest Plan and watershed analysis have identified many areas in need of restoration. Also, mills continue to close down in the northwest creating the continuing need for displaced forest worker jobs and training.

Question: **You are requesting an additional $7.4 million for forest plan implementation. What is the rational for this increase?**

Answer: The requested increase is necessary for maintaining an efficient flow of the timber pipeline. The Forest Plan calls for the harvest of approximately 211 MMBF of timber in 1997, and the BLM has every intention of meeting this target. As such, BLM will use the proposed increase in funding to design and administer timber sales under the Forest Plan. In FY 1997, focus will placed on reforestation techniques such as seedling growth, preparation of sites, and maintenance of young stands, precommercial thinning, fertilization, and pruning. In addition, efforts will be placed on the management of habitat and other natural resources necessary for the growth of productive and healthy forests as well as the completion of watershed assessments, which become the basis for management decisions for monitoring and restoration programs.

MINING LAW ADMINISTRATION

Question: **The mining patent moratorium has been retained pending changes to the 1872 Mining Law to address the issue of royalties. What is the current status of the proposed legislative changes?**

Answer: The Department supports reform that embodies four principles: an end of patenting, payment of an annual maintenance fee, fair return to the public (royalty), and stronger environmental protection. None of these measures have been enacted. The Department is proposing to make the $100 holding fee permanent with a inflation factor. Currently authority to collect this fee expires in 1998.

Question: **What are you doing to address the backlog of grandfathered patent applications which are not affected by the moratoria?**

Answer: We are continuing to process those applications as expeditiously as possible given existing resources. We are training a new class of about a dozen mineral examiners to assist in determining validity of mining claims encompassed by patent applications.

Question: **How many applications do you expect to process in 1997 under your budget request?**

Answer: BLM expects to process about 100 applications at its budget request level.

Question: **Do you expect to complete work on all pending applications within the time frame provided in the FY 1996 conference report?**

Answer: Continuation of the moratorium, consistent funding and staffing levels, and the third party contracting for some mineral examiners will assist BLM in completing its work on pending applications. BLM is planning to prepare an action plan under which 90 percent of the pending applications could be reviewed in a 5 year time frame as required by the FY 1996 Appropriations Act.

CENTRAL HAZARDOUS MATERIALS FUND

Question: **Your request includes an increase of $10.5 million for Central Hazardous Materials, but BLM's share of this increase is only $350,000. Why are you requesting such a large increase if these resources are not being directed to BLM lands?**

Answer: BLM is the fund administrator for the Central Hazardous Materials Fund. The objective is to provide a central account to bring greater consistency, direction, and coordination to the Department's hazardous materials management program. Decisions regarding the overall operation of the fund, including the disbursement of monies and allocation of funds to specific sites is the responsibility of the Deputy Assistant Secretaries' Advisory Group on Environmental Policy and Compliance (the Advisory Group), which represents the DOI's policy makers on environmental issues. BLM simply executes financial transactions.

Question: **Your request shows that the Fish and Wildlife Service and the National Park Service are the primary users of this fund. Why are you requesting funding for these bureau's in your request?**

Answer: The BLM is the fund manager for the Central Hazardous Materials Fund which simply consolidates needs between the 3 agencies. This is based on the successful practice of the bureau's acting as fund managers for DOI in other programs. This approach has been successful in the fire fund which BLM administers for the DOI. Similarly, the FWS manages the Natural Resource Damage Assessment Fund for the Department.

Question: **How much money has been recovered from responsible parties in FY 1995 and FY 1996?**

Answer: For 1995, no monies have been recovered. However, the first recovery is anticipated in 1996 for $134,000.

Question: **What actions are being taken to increase cost recovery from responsible parties?**

Answer: The Bureau's are devoting increased resources towards the identification of possible responsible parties. The Department anticipates increased resources towards cost recovery and cost sharing.

ALMRS

Last year the Subcommittee directed that the Bureau "…. thoroughly test, verify, and validate that ALMRS operates as specified and needed by the Bureau." The Subcommittee further directed the Bureau to certify "… that the ALMRS performs accurately and effectively, and provides the expected capabilities."

Question 1: **When will ALMRS development and testing be completed ?**

Answer: Our current ALMRS/ Initial Operating Capability (IOC) implementation schedule has Final Qualifications Testing (FQT) in New Mexico being conducted in May and full Operational Assessment, Testing and Evaluation (OAR&E) in New Mexico beginning in September. Based on the results, we will order necessary hardware and telecommunication upgrades by October 1, 1996, and beginning in February of 1997 start the upgrade and installation of ALMRS on three states at a time (based on current on-going site readiness reviews). Full implementation of all sites will conclude in August, 1997.

Question 2a: **When does the Bureau plan to certify whether ALMRS performs accurately and effectively, and provides the expected capabilities?**

Answer: Our independent contractor, Mitretek Corp, is roughly in the middle stages of verifying and validating ALMRS/Modernization against 800 evaluation criteria. To date we are very pleased with the results of this effort and believe that it has significantly improved our development process and will result in a better end product. The prognosis, based on Mitretek Corporation's preliminary assessment report dated April 1, 1996, as well as their ongoing evaluation efforts, is good. Testing will proceed through the summer culminating in a full stress test in September. Certification will not happen until late September, with a final report and certification being provided by Mitretek in October of

1996.

Question 2b: **Which Bureau official will provide the certification ?**

Answer: The Deputy Director, based on the recommendation of the Chief, Office of IRM/Modernization, will provide any necessary certification that the ALMRS performs accurately and effectively and provides the expected capabilities.

Question 2c: **What will be the basis for the certification ?**

Answer: We intend to use and rely on our independent contractor's (Mitretek) Operational Assessment, Testing and Evaluation report which will be provided to the Bureau in October of 1996.

The Subcommittee understands that BLM is (1) examining system performance and sizing matters to determine the additional equipment and other technology needed to support ALMRS and (2) developing a life-cycle cost model to more accurately estimate the cost of ALMRS and the modernized information technology platform over their useful lives. Since the Bureau is requesting funds for this project in fiscal year 1997, the Subcommittee would like to know:

Question 1a: **How much will it cost to complete ALMRS deployment in fiscal year 1997 ?**

Answer: Our system engineering estimates to date, including sizing and capacity analysis by TRW and Computer Sciences Corporation (CSC) initially indicate a cost of approximately $ 25 million dollars to provide the required upgrades of ALMRS. Final determination on the actual cost will be made by late summer.

Question 1b: **Is this amount more or less than earlier estimates provided to the Subcommittee?**

Answer: It is approximately the same. These system engineering estimates include not only the hardware upgrade costs, but also their staging and installation costs, that were not previously itemized to the Subcommittee.

Question 1c: **Are the fiscal year 1997 estimates for ALMRS and information technology needs reliable ?**

Answer: Following sound system engineering principles and priorities will give the Bureau the most reliable estimates possible. TRW, CSC and Mitretek are preparing and reviewing architectural configurations and alternatives to ensure compatibility and efficiencies with the ALMRS segments and systems.

Question 2: **How much will ALMRS cost in future years? Please identify costs separately and totals for each year.**

Answer: A draft Life Cycle Cost Model prepared jointly between BLM and Mitretek Corporation is being prepared and has not yet been approved by BLM management. Our current estimates are derived from the approved Operations and Maintenance Strategy of April, 1995. Costs shown below are those associated with direct ALMRS/Modernization funding, and not operations, maintenance, or other costs paid from within existing funds.

Costs of ALMRS/Modernization
($ in millions)

Categories	FY97	FY98	FY99	FY 2000	FY 2001
Entire Program Costs	6.5	5.6	5.6	3.1	3.1
Information Highway	4.0	3.5	3.0	3.0	3.0
Software Development	0	0	0	0	0
Data Collection	1.8	0	0	0	0
IOC Implementation	17.65	0	0	0	0
Operations & Maint.	12.25	12.41	12.53	12.59	12.64
Total, ALMRS subactivity funding:	**42.20**	**21.51**	**21.13**	**18.69**	**18.74**

The Subcommittee understands that the ALMRS/Modernization project will officially end in early fiscal year 1997. The ALMRS Project Office will be changed to the IRM Modernization National Center and many experienced project staff are scheduled to leave before the system is fully deployed. The Subcommittee is concerned whether the ALMRS/Modernization investment will be managed properly after the transition from the deployment phase to the operations and maintenance phase.

Question 1a: **In this regard, what actions has BLM taken to be ready to operate and maintain an effective ALMRS infrastructure in fiscal year 1997 and beyond ?**

Answer: BLM is actively pursuing this issue on several different fronts, both from a managerial and a technical standpoint. The Assistant Director for Resource Use and Protection has been identified as the ALMRS system owner and will become responsible for its overall operations and maintenance. The Office of IRM/Modernization, at the request and support of the Deputy Director, is conducting IRM staffing assessments at every State Office and National Center. Based on the combined findings a Bureauwide strategy will be developed to ensure that all offices have the proper staffing with the appropriate skills, to guarantee the successful implementation, operations and maintenance of the ALMRS system.

The Bureau has also established an IRM Certification and training program that identifies 14 primary IRM skill areas; such as System Administration, Data Base Administration, Network Administration, Groupwise Administration (E-mail) and Security. Our National Training Center has integrated IRM technical training into its mission, and will continue to provide, support and coordinate on-going IRM technical training in the outyears.

All necessary planning, review and upper level management approval for the orderly transition from the Office of IRM/Modernization to the National IRM Center, has already occurred. These plans and decisions support the continued leadership role of the development office as that office transitions to the role of operations and maintenance of the ALMRS system.

The Deputy Director, as chair of the Information Resource Management Review Council (IRMRC), has also recently approved the mission statement and focal areas for the National IRM Center. The Office of IRM/Modernization will be transitioning to the National IRM Center at the end of fiscal year 1996. The mission statement states that the NIRMC " is responsible for supporting the Bureau's mission by providing collaborative technical guidance based on Headquarters planning and policy and IRM standards, to the State and Field Offices and to other National Centers. In addition the NIRMC is responsible for life cycle support for all Bureauwide systems". The NIRMC focal areas are to provide guidance, oversight and direction to State and Field Offices as well as to other National Centers and to maximize the Bureau's resources through low risk system integration, including major systems development (ALMRS/IOC) and maintenance, the development of national systems through established project management methodology, the administration of all national systems including, testing and releasing system upgrades, and configuration management for all national systems.

The Associate State Directors and Center Directors, serving as the Field Committee, have been given the responsibility to serve as "advisors" to the Executive Leadership Team (the Director, the Assistant Directors, the Deputy Director and all of the State Directors). They are also serving as members on the IRMRC which is chaired by the Deputy

Director.

With the assistance of our contractor, Computer Sciences Corporation (CSC) we have begun work on a plan which will provide State and Field Offices with the information necessary to operate in an operational and maintenance mode once the project is over. This plans includes the development of a "parts" catalog that will allow the State and Field Offices to know the vendor, annual cost, replacement cost, and/or service warranties for every piece of hardware and software concurrently on the contract. We will be visiting all major offices to explain exactly how maintenance/replacement/etc. will be done.

From a technical standpoint we are currently conducting a "site readiness review"at each office to determine their overall "readiness" for receipt of the ALMRS system. ALMRS will be emplaced based on a priority list established by the results of the site readiness reviews.

Question 1b: **What actions have been taken to mitigate technical and management risks ?**

Answer: We believe that the above actions will cover the technical and managerial risks identified to date. As a result of the continuing independent evaluation by Mitretek, additional risks that are identified will be addressed in a timely and positive remedial manner.

Question 2: **Will the IRM Modernization National Center have the authority necessary to centrally manage ALMRS and enforce system-wide standards, polices, and procedures over state and district offices ?**

Answer: The National IRM Center (currently the Office of IRM/Modernization) has established a National Configuration Management Board to centrally manage, through formal change controls, all ALMRS dependent "core-baseline" products. These system-wide Commercial-Off-The-Shelf (COTS) products have been established as the Bureau's standard software and hardware products. Policies and procedures are in place for State and District offices to propose changes to the national core baseline products.

Recently, upper level management has renewed their commitment that all State Offices and National Centers will establish and implement a State/Center level Configuration Management Board (CMB) at their level by May 31, 1996. [Many Offices had already established their CMBs prior to the Bureau accepting this recommendation in April 1996.]

To further establish the necessary oversight and review by the National

IRM Center, the Bureau's Chief Information Officer (CIO) has been designated as the CMB official for ensuring compliance with the Bureauwide rules and guidelines and IRM standards. The ultimate responsibility for enforcing system requirements lies with the Assistant Director, Management and Information Services. The CIO will review all State Offices and National Center CMB charters and minutes to ensure compliance with National level standards, policies and guidelines.

Question 3a: **What are the operations and maintenance cost projections for fiscal year 1997 and beyond ?**

Answer: Total costs for Operations and Maintenance in Fiscal Year 1997 are projected to be $42.5 million, including those costs funded outside the ALMRS subactivity. Additional O&M costs are being analyzed, but are expected to stay relatively constant in outyears.

FY97	**FY98**	**FY 99**	**FY 2000**	**FY 2001**
		($ in millions)		
$ 42.5	$ 41.0	$ 41.0	$ 42.5	$ 43.5

These figures represent a total projected cost for ALMRS/ Modernization. The BLM will continue to review these projections in light of the draft Life Cycle Cost Model, as well as the downsizing and organizational reengineering the BLM is currently undertaking Funding that exceeds the amounts provided in the ALMRS subactivity will be paid from other, existing funds.

Question 3b: **If the cost projections are greater than originally anticipated, please explain the reasons for the increase ?**

Answer: These are the same figures that were reported to the Subcommittee last year. Funding that exceeds the amounts provided in the ALMRS subactivity will be paid from other, existing funds.

The Subcommittee is aware that the geographic information system (GIS) or spatial components of the ALMRS /Modernization is to be developed under a later release.

Question 1: What are BLM's plans and time frames for providing GIS capabilities ?

Answer: Significant software GIS capabilities already exist with the deployment of the ALMRS/Modernization hardware and software infrastructure During fiscal years 1993, 1994 and 1995, several State Offices or National Centers acquired resource management GIS hardware capabilities [with their normal "management of lands and resources - MLR funding]. Approximately $ 5.0 million dollars of non-ALMRS funding were used to acquire this hardware capability.

Currently the BLM is in the initial phase of identifying, planning, and analyzing its GIS hardware needs to support resource management and land management decisions. Current testing for improving performance (hardware and software) of ALMRS/IOC will have an impact on what direction the BLM takes to meet its GIS resource management needs.

The Assistant Director for Planning and Assessment has taken the lead in developing a team to analyze the actions necessary to identify how the BLM can, at the least cost, provide this capability to all Field Offices.

Question 2a: **Has the Department of Interior or the BLM involved other bureau or federal land management agencies in its planning ?**

Answer: Yes. BIA has completed a draft "commonality assessment" of ALMRS based on several months of detailed study. While the ALMRS software development is nearly complete, it has not yet been formally delivered to the BLM and has not undergone acceptance testing by the BLM. Based on BLM's acceptance of the ALMRS software and BIA's completed study of ALMRS, the Department is expected to establish a final policy on the use of ALMRS within Interior and will incorporate that policy and its attendant activities into all Interior IRM planning.

The Initial Operating Capability (IOC) of the Bureau of Land Management's (BLM's) Automated Land and Mineral Record System (ALMRS) is designed to automate an important subset of the BLM's land management responsibilities: the creation and maintenance of land and mineral records, such as oil and gas leases and rights of way permits.

In the Summer of 1993, the Department established a Land Records Automation Work Group to (1) identify the level of ALMRS compatibility within each Interior bureau and (2) determine the feasibility of using ALMRS to automate each bureau's land and mineral record processes. Next to the BLM, the BIA is by far the most significant maintainer of land and title records. As a result, the BIA was chosen to lead the effort to determine the feasibility of modifying ALMRS to meet the land and title record maintenance requirements of the BIA and other Interior bureaus. The Department's policy with respect to ALMRS is: Where appropriate, all Interior bureaus will use ALMRS to support their land title and record management responsibilities.

Initial analysis indicates that ALMRS business processes could be modified to meet the BIA's requirements. However, significant differences may exist in the BLM and BIA data structures and could seriously affect the cost and time required to adapt the BLM system to meet BIA's needs. Further analysis should provide more information on the compatibility of the data structures. The final results of the BIA study will be used to assist in the assessment of the feasibility of using ALMRS to support other Interior bureaus' land and title record management responsibilities.

The original logical model for ALMRS was reviewed by the US Forest Service to ensure compatibility with their land and mineral record keeping activities. To date, only preliminary discussions and coordination meetings at a very high level have occurred with the USDA, Forest Service. With the award of their 615 contract and with an increased emphasis towards sharing/co-locating offices, we can only anticipate an increased interest and communication with the Forest Service regarding their use and/or sharing of ALMRS information.

Question 2b: **If not, does the Department or BLM plan to do so ? Please elaborate.**

Answer: When the Operational Assessment Testing and Evaluation (OAT&E) is complete and certified, the Bureau/Department plans to offer management and technical assistance to those agencies whom request assistance.

PRELIMINARY INDEPENDENT VERIFICATION AND VALIDATION ASSESSMENT OF ALMRS BY MITRETEK

Mitretek Systems report on its preliminary assessment of the ALMRS/Modernization program discusses the ability of the system to meet BLM business requirements and longer-term viability of ALMRS and the modernized information technology platform.

The Subcommittee was pleased to see, in Mitretek's judgement, that ALMRS will succeed in a number of areas, including providing equal or better functionality than the existing system; minimizing maintenance and technical upgrade costs; minimizing the cost to add functionality, improving the quality of data, providing interoperable office automation functions; and providing a very high level of flexibility, allowing easy customization by other agencies to support their land and mineral functions.

Question 1: With regards to ALMRS use by other bureaus or agencies, what is the Department of the Interior or BLM doing to promote or require the use of ALMRS beyond BLM ?

Answer: We have long maintained that the biggest winners in the ALMRS/Modernization effort will not be the BLM or the Federal Government, but the counties and states in the American West. We have proven through pilot efforts with counties such as McKinley in New Mexico that our automation of land ownership information benefits counties in the daily operation of their police, fire, and emergency services; surveying, road location and maintenance activities; voter registration and taxation responsibilities. In addition, it is clear from cases such as Flathead County, Montana that cooperative efforts in geographic data collection can collectively save local governments millions of dollars.

We have already demonstrated increased efficiency and savings for the oil and gas industry during our pilot tests in New Mexico. Being able to track Applications to Drill (APD's) without having to visit our offices; being able to overlay resource and other data on proposed well sites thus eliminating unnecessary field trips; being able to instantly determine land status and legal conflicts; all save industry millions in efficiency costs and actually increase their ability to produce oil and gas for the nation.

It goes without saying that ALMRS/Modernization will substantially increase the Bureau's efficiency and level of customer service. Certainly, taking the steps to do a second release of ALMRS and provide the upgraded tools for major GIS resource activities will promote the health of the land and all the renewable resources that we manage for the continued productivity of the public lands. As stated above, our system is still regarded as the "generic ALMRS" for the Department of Interior. The Bureau of Indian Affairs (BIA) is now in the final stages of deciding just how they will use ALMRS to meet some of their needs. It is already part of their FY 97 budget process. In addition, we have begun tentative discussions with the US Forest Service.

The Mitretek report also cited several risks including system performance that could result in BLM making significant enhancements beyond what has been planned so the systems can be effectively deployed.

Question 1: In this regard, what does the BLM believe to be the most significant risks or problems ?

Answer: The most significant risks are associated with portions of the software that now run too slowly. Such performance was not unexpected in a project of this scope. BLM has planned and is now in the process of implementing performance enhancements to the software.

Question 2: **What corrective measures will these require ?**

Answer: TRW is continuing to analyze , as well as Mitretek Corp, systems engineering and the software performance indicators. Prior to Operational Assessment Testing and Evaluation (OAT&E), performance improvement activities will be the major focus area relative to IOC software. This should demonstrate the required performance improvements necessary to ensure a successful deployment.

Specifically we are looking at Informix tuning, upgrading and providing additional servers and processors, as well as fine-tuning the ALMRS /IOC software code.

Question 3: **How much will it cost to mitigate these risks or correct these problems?**

Answer: We have included in our FY96 operational budget, $ 2.0 million to complete the necessary "fine-tuning" of the ALMRS/IOC software coding for the primary purpose of providing improved performance. The task order to CSC to begin work on this risk mitigation was implemented in early January 1996.

As part of the Administration's REGO II program, the Vice President and the Secretary proposed that the authority to conduct inspection and enforcement of oil and gas activities on BLM be transferred from the Federal government to the states.

Question: **What is the status of this proposal?**

Answer: The proposal was to consider how to eliminate duplication and improve efficiency. This was done by convening a task force composed of state, Native Americans and government representatives. A report was issued in March, 1996, which recommended that, in keeping with the principles set forth for elimination of duplication and in recognition of uniqueness of government units, BLM would meet individually with states and Native Americans to discuss the way and manner to move.

Question: **What are your plans to implement such a policy?**

Answer: BLM state offices are contacting individual state oil and gas commissions and Native American governments, inviting them to sit down and discuss the provisions to reduce redundancy.

Question: **Will you be proposing a legislative proposal to implement this policy?**

Answer: Perhaps. Given the results of the individual state consultations, legislative authorities may need to be modified.

Question: **What has been the reaction of the affected states?**

Answer: There is a general recognition that the States will require funding to undertake the federal responsibilities. At this time it is likely that not all states anticipate taking over the functions.

Question: **The Department of the Interior has referenced a Solicitor's opinion on the subject of "Inherently Federal." Provide a copy of this opinion for the record?**

Answer: The current existing opinions which were published on December 12, 1994 and May 8, 1995 are under review and should be completed shortly. A copy will be submitted to the Committee when the new opinion is completed.

Question: **What is the FY 1995 actual, FY 1996 estimated, and FY 1997 proposed amounts for administrative costs at the headquarters level and regional office level for inspection of oil and gas wells on Federal lands?**

Answer: In 1995, the BLM's financial management system was simplified to reduce overhead and make more resources available to on-the-ground resource management activities. The BLM's current system does not provide the exact information requested. However, each State Office with oil and gas production has one full time inspection and enforcement coordinator. There is also one coordinator at the Washington office headquarters. Therefore, an estimate of the costs in 1995 were about $490,000, in 1996, $505,000, and in 1997, $517,000. Included in these estimates are labor and support costs.

QUESTIONS SUBMITTED BY CHAIRMAN RALPH REGULA

BUREAU OF LAND MANAGEMENT
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS

GRAZING FEES

Question 1: **Have the rangeland reforms gone into effect as planned in August and what response have you been getting as a result of the implementation?**

Answer: The regulations for Grazing Administration, Appeals Procedures and Advisory Councils were implemented on August 21, 1995. Implementation of the regulations is going well considering the controversy surrounding these new regulations. The success of resource Advisory Councils has exceeded our most optimistic expectations. There continues to be concern on the part of industry about implementation of the Grazing Administration regulations. The Bureau is working closely with industry to assure an orderly transition. As both the agency and the public become more familiar and comfortable with the regulations, these concerns are subsiding.

Question 2: **How have the new Resource Advisory Councils been working? Has the dialogue between the ranchers and the environmental community improved as a result of the new councils?**

Answer: Overall, the new RACs have been very successful. The RACs provide a forum for commodity interests, conservation interests and the general public to discuss and develop a collaborative vision for managing healthy, diverse and productive public rangelands. In the past, conservation groups and other interests often felt left out of the decisionmaking process because the old Grazing Advisory Boards allowed ranching interests to control the debate. Today, all interests are seated out the same table with an equal opportunity to provide BLM with advice.

Question 3: **What is BLM's view of proposed new grazing legislation (S. 1459) which recently cleared the Senate? What impact would this legislation have on the range reforms you have proposed?**

Answer: BLM is strongly opposed to the proposed new grazing legislation because it would:

- compromise environmental protection,

- diminish public involvement in public land management,
- hamper multiple use management of public lands, and
- increase red tape and administrative burdens.

The following analysis of the legislation provides specific reasons why BLM strongly opposes the bill.

If enacted, the legislation would nullify the new regulations and immediately halt progress in implementing the Department's reforms and return grazing administration to the former regulations. It would require the promulgation of new regulations under the authority of the new legislation, creating another period of confusion and uncertainty. The only aspects of the new regulations which would continue under the legislation would be the Resource Advisory Councils.

Analysis of Grazing Legislation

ISSUE	Public Rangeland Management Act	BLM's regulations
Environmental protection	• Exempts on the ground grazing management from National Environmental Policy Act direction that the effects of federal actions on human health and the environment be assessed in a public forum (including state and local governments and the concerned public) (Sec. 106(d)).	• Management decisions continue to be made via a tiered decision-making process that includes the National Environmental Policy Act.
	• Unclear if land managers will be able to use water for wildlife purposes (or other uses) if State law conflicts. Could limit land managers' ability to develop resources for multiple use purposes such as structuring water facilities to allow access to water by wildlife and wild horses (Sec. 124).	• To the extent allowed by state law, the Secretary of the Interior shall seek new water rights on public lands for livestock grazing on public lands in the name of the United States.
	• Limits managers' ability to develop environmentally beneficial terms and conditions of a grazing permit or lease in order to protect site specific natural resources (such wildlife habitat and riparian areas (Sec. 134(b)).	• Terms and conditions provide basic livestock management direction while allowing managers and permittees the flexibility to tailor requirements in order to achieve multiple use objectives.
	• Impedes ranchers from using restoration techniques such as conservation use.	• Allow ranchers to rest an allotment for up to ten years for conservation purposes.
	• Permittees do not have to "control" subleased livestock, thus land managers cannot ensure subleased livestock meet the terms and conditions of a permit (Sec 104(21)).	• Any livestock run on the public lands must be owned or controlled by the permittee.

ISSUE	Public Rangeland Management Act	BLM's regulations
Public involvement	• Only allows limited public participation in grazing management after a decision is proposed (Secs. 121, 151, 152, 154, 155). Only permittees, states having lands within the allotment, grazing advisory councils, and adjacent landowners could participate in development of grazing management decisions. • Exempts on the ground livestock management from the public involvement requirements of the National Environmental Policy Act (Sec. 106(d)). • Even if a party is socially or economically affected, only applicants, permittees and lessees may protest proposed decisions — virtually assuring costly appeals and litigation (Sec. 152).	• Any interested citizen, group, or organization may request "interested public" status and participate in rangeland planning and decision-making. • Fully comply with the National Environmental Policy Act. • Any member of the interested public may protest a proposed decision to the responsible official.

ISSUE	Public Rangeland Management Act	BLM's regulations
Multiple use	• Creates hundreds of new single use grazing advisory councils; mandates that 50% of the membership be comprised of grazing permittees. No other public land user group has mandated advisory groups (Sec. 162).	• Established local citizen Resource Advisory Councils, equally comprised of commodity groups, conservation interests, and the general public, to advise BLM on land management and planning.
	• Broadly exempts grazing management from oversight, protest, analysis, disclosure, and public involvement requirements that apply to other public land users (Sec. 106, 121, 152-155).	• Grazing protests and appeals are governed by the same provisions that apply to other public land uses.
	• Use of stock ponds or wells authorized by a range improvement to be controlled by a permittee or lessee; could lead to the exclusion of wildlife, wild horses, and burros from water (Sec. 122(b)(5)).	• Title to future permanent range improvements held by the U.S. Permittees compensated for their interest if land is put to other purpose or if preference is transferred.
	• Allows ranchers to charge others to graze livestock on lands permitted to them often significantly more than they pay (without any return to the public) (Sec. 104(21), 132).	• 35% of the difference between federal grazing fee and the average of the private fee is assessed for authorized pasturing agreements.
	• Only provides for range improvement cooperative agreements between BLM and permittees. Groups such as Trout Unlimited, Ducks Unlimited, and other hunting groups are not provided for (Sec. 122(a)).	• BLM may enter into a range improvement cooperative agreement with permittees/lessees and any public or private organization in order to meet objectives.
	• Rancher-controlled grazing advisory councils to advise BLM on grazing management, allotment decisions, the creation of objectives and expenditure of range improvement funds (Sec. 162).	• Diverse and balanced Resource Advisory Councils provide BLM advice on a wide array of issues.
	• Grazing advisory councils override the "balanced representation" requirements of other federal laws resulting in skewed representation of grazing permittees (Sec. 162).	• Resource Advisory Councils are chartered under the balanced representation requirements of the Federal Advisory Committee Act.

ISSUE	Public Rangeland Management Act	BLM's regulations
Red tape	• Detailed, data intensive land use plans (which generally cover 2-5 million acre areas) would need to be developed to ensure that on-the-ground management decisions are technically supportable (Sec. 106(b)(1)(2)). • Would require lengthy, time consuming amendments to land use plans before even minor adjustments to grazing use could be made (Sec. 106(b)(2), 111(a)(2)). • Creation and management of hundreds of new congressionally-required grazing advisory councils would cost additional millions of dollars per year (Sec. 162).	• Standards for healthy rangelands are incorporated into land use plans and applied on-the-ground through the use of the terms and conditions of a permit or lease. Grazing management is adjusted through terms and conditions. • Adjustments to grazing use are made through grazing permits. • Twenty-four citizen Resource Advisory Councils, representative of the full spectrum of multiple uses, may form "subgroups" to address specific issues as needed.

PILOT PLAN FOR JOINT FEDERAL/STATE LAND MANAGEMENT

Question: The House report accompanying H.R. 1977 directed The Secretary to develop a pilot plan for joint federal/state management for one or more selected BLM resource areas or affected states of counties. While I recognize the bill has not yet become law this was report language and you may have begun responding to this directive. What if anything has been done and what is your overall view of this concept? How would you implement such a pilot?

Answer: The Department does not support wholesale transfer of public lands administered by the BLM to the States. The BLM has been working with state and counties during the land use planning process to define and describe future management for the areas. The BLM has also been coordinating their recreation program with state/county tourism and transportation planning efforts.

The BLM has entered into a Memorandum of Understanding (MOU) with the Western States Land Commissioners Association (WSLCA) to further Federal/state coordination and joint management. This is intended to define broad resource management and collaborative opportunities, including data sharing, training, education, land use planning, and cooperative resource management opportunities. In this light, the BLM welcomes the opportunity to discuss and highlight some of the joint management efforts that are evolving and will be occurring on the public lands.

The actions described above are part of our normal and on-going efforts in land use planning and to be a good neighbor in the West. No specific actions have been taken in response to this directive.

RECREATION FEE PROPOSAL

Question: When the FY 1996 Interior bill becomes law a new recreation fee demonstration program would take effect which would allow BLM to establish recreational fee programs and enable the collecting site to keep 80 percent of the fees generated. Admittedly this program was designed with agencies with much bigger recreation fee programs than BLM and it may not be structured to best suit BLM needs. Have you examined how you would implement this proposal and do you have any recommendations for changes with respect to BLM that would improve the program to better meet your needs?

Answer: The BLM is supportive of the Recreation Demonstration Pilots because it expands our authority to collect fees. We have mixed opinions on the 20 percent special fund because we do not believe that 100 percent of the collected receipts will fund all the operations and maintenance requirements for each site. BLM does not anticipate managing any fee sites that will generate more money than will be required to manage the site.

The current recreation fee proposals may also create a complicated financial tracking system. At this point in time, BLM would prefer to have all new recreation fees deposited in one account and permanently appropriated, so they can be managed more simply.

MINING REFORM

Question. 1: Last year you indicated BLM was studying the questions of whether or not to use administrative authorities to propose more stringent reclamation requirements given the fact that mining reform legislation was stalled. What has your further study concluded and do you plan to administratively implement additional reclamation requirements?

Answer: As a result of our reviews, we have decided to, as an interim step until mining reform legislation is passed, administratively propose new bonding requirements. These requirements will assure that adequate funds will be provided by the operator to reclaim the mining operation. We have also decided to - with a part of the additional funds provided in the FY 1996 Omnibus Appropriations Act - to emphasize 'front end' protection in processing of mining plans of operations rather than waiting until the end of the process.

CENTRAL HAZMAT

Question 1: What is the status of your effort with the Department of Justice to establish procedure and the necessary authorities for a cost recovery/cost avoiding program at a pilot site? Is that pilot site Cuyahoga and are you ready to expand beyond one site?

Answer: The National Park Service (NPS) Waste Management and Hazardous Materials Team adopted a cost recovery/cost avoidance program (Program) under the auspices of the NPS Park Facility Management Division in 1994. Since that time, the Program has aggressively sought to avoid NPS expenditures at NPS hazardous substance sites where the legal and equitable responsibility for the contamination rests with third parties. Additionally, the Program has, in various stages of development, approximately ten cost recovery cases which will be pursued in accordance with the Comprehensive Environmental

Response, Compensation and Liability Act (CERCLA). Based upon a number of established criteria used by the Program in prioritizing cases, including total response costs incurred, the Krejci Site in Cuyahoga Valley National Recreation Area (CVNRA) is one of, if not the, Program's highest priorities.

In ensuring that the strongest cost recovery cases are developed, it has been necessary to utilize a wide variety of legal and administrative authorities. In establishing these procedures, including the issuance of CERCLA Section 104(e) information requests, the NPS has developed and maintains a strong working relationship with the Department's Office of the Solicitor and the Department of Justice (DOJ). These relationships have provided all necessary legal support.

Question 2: How have the cost recovery efforts at Cuyahoga gone and are these discussions being handled in such a way to maintain the good relations the National Park Service has developed with its neighbors who are also the potentially responsible parties?

Answer: Currently, the NPS is developing administrative procedures to support the CERCLA cost recovery effort at CVNRA. Upon completion of the legal groundwork necessary for the development of this case, the matter will be pursued, as appropriate, by DOJ in cooperation with the NPS. The NPS has taken multiple steps in being sensitive to the concern of local municipal entities believed to be associated with historic disposal activities at the Site. The NPS distributed separate Information Request letters to the municipalities requesting information in an unburdensome and nonadversarial fashion. After distribution of the Information Request letters, the NPS met with representatives of the local municipalities to discuss the NPS' intentions with respect to response action and cost recovery at the Site. This open and nonadversarial posture has continued to the present and will continue in the future. The Program maintains frequent communication with the CVNRA Superintendent regarding all issued related to the municipalities.

Question 3: Your budget indicates $1.5 million was available for Cuyahoga last year. What is the status of the work at the site and what will be accomplished in FY 1996?

Answer: In addition to the cost recovery efforts, the $1.5 million is being used to continue development of the Remedial Investigation/Feasibility Study (RI/FS) for remediation and to support the CERCLA cost recovery effort. The RI/FS will be completed in late 1996 or early 1997.

Question. 4: What would the proposed $2 million be used for in FY 1997?

Answer: The $2 million would be used to: 1) complete the RI/FS; 2) develop a Record of Decision (ROD) that will determine the appropriate extent of response for the site; 3) develop the plans and specifications for the final response alternative identified in the ROD; and 4) support for the cost recovery effort.

LAND ACQUISITION

Question 1: For the record please provide your land acquisition priority list for FY 1997.

Answer: To date, the Department has not yet compiled an FY 1997 land acquisition priority list. Only after the FY 1996 Omnibus Appropriation bill was enacted was the Department able to send its FY 1996 lists for the three bureaus to the appropriations subcommittees for review. Choices regarding FY 1997 projects cannot be made until the FY 1996 list is approved by those subcommittees. The Department will submit a priority list for FY 1997 after agreement is reached on FY 1996 land acquisition projects.

QUESTIONS SUBMITTED
BY THE HONORABLE JIM KOLBE

BUREAU OF LAND MANAGEMENT
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS

Question: **What is the current status regarding the issuance of grazing permits, specifically in Arizona?**

Answer: The BLM is on track with reissuing 10 year leases or permits as they expire. Annual grazing authorizations under the leases or permits are being issued on schedule upon the payment of grazing bills.

Question: **How many grazing permits does the Bureau of Land Management (BLM) issue annually in Arizona?**

Answer: There are about 800 leases and permits for the use of public rangelands in Arizona. In addition to reissuing leases or permits as they expire, the BLM issues more than 1,100 annual or supplemental grazing use authorizations, transfer approvals, and range improvement permits during a fiscal year. These additional activities are necessary to accommodate rancher's needs for flexibility, climatic fluctuations, or the plans for range improvements.

Question: **Are there any grazing permits that are being delayed because an environmental assessment or environmental impact statement has to be completed? How many permits are "being held up" and what environmental related work is being conducted?**

Answer: The BLM has completed grazing environmental impact statements (EIS) for all areas where livestock grazing occurs. Very few renewal of permits are delayed because environmental assessments have previously been completed. Site specific environmental assessments for permit or lease renewals is quite simple in most instances. This process involves an administrative review of the existing documents to verify their adequacy and a memorandum documenting the finding. In a few cases BLM does an environmental assessment to address the area of deficiency while tiering to the previous environmental documents for the allotment. These are abbreviated assessments with public involvement. In rare cases, the BLM may need to do a high level environmental assessment or even an EIS on an allotment where changes in uses or conflicts have developed which were not adequately addressed in previous environmental documents.

Question: **How does the BLM go about prioritizing the issuance of grazing permits? Which permits get processed first?**

Answer: BLM does not assign priority in the renewal or the transfer of permits or leases. These are done in the order of required renewals or a transfer is submitted by a new permittee or lessee.

Question: **What is the current status of the lawsuit recently filed against the BLM by the Southwest Center for Biological Diversity? It is my understanding the lawsuit alleges that the BLM in renewing grazing allotments in southern Arizona failed to complete Section 7 Consultation with the U.S. Fish and Wildlife Service (FWS) for certain threatened or endangered species. If this is correct, please inform me which threatened or endangered species are referenced in the lawsuit. I'd also like to know the results of the BLM's Section 7 Consultation with the FWS.**

Answer: In response to the lawsuit the BLM reinitiated consultation with FWS on February 29, 1996. The consultation will assess the impact of the livestock grazing program in the Safford District on all listed and proposed Threatened/Endangered (T&E) species in the district. This list includes 34 total species, 6 proposed, 24 endangered and 10 threatened (see exhibits A and B below).

BLM has agreed to complete a biological evaluation by June 1, 1996. At that time we will enter into formal consultation. The biological evaluation will consider the impact of the grazing program on T&E species and critical habitat on a programmatic basis as well as by individual grazing allotment.

EXHIBIT A

LIST OF THREATENED. ENDANGERED, AND PROPOSED SPECIES IN COUNTIES ENCOMPASSED BY THE SAFFORD DISTRICT AS OF JANUARY 11, 1996

Consolidated list based on county lists
provided by U.S. Fish and Wildlife Service

SPECIES*	CRIT. STATUS	RECOV. HAB.	FED. PLAN	REG. NOTICE	COUNTIES
PLANTS (6)					
Arizona Cliffrose	E	No	Yes	5/29/84	Graham
Arizona Hedgehog Cactus	E	No	No	10/15/79	Pinal
Cochise Pincushion Cactus	T	No	Yes	1/9/86	Cochise
Kearney's Blue Star	E	No	Yes	1/19/89	Pima
Nichol"s Turk's Head Cactus	E	No	No	10/26/79	Pinal, Pima
Pima Pineapple Cactus	E	No	No	4/20/92	Pima, Santa Cruz
FISH (12)					
Apache (Arizona Trout)	T	No	Yes	7/19/75	Graham, Greenlee
Colorado Sqawfish	E	Yes	Yes	3/11/67 3/21/94	Gila
Beautiful Shiner	T	Yes	Yes	8/31/84	Cochise
Desert Pupfish	E	Yes	Yes	3/31/86	Pima, Santa Cruz, Pinal, Graham
Gila Topminnow	E	No	Yes	3/11/67	Pima, Santa Cruz, Pinal, Graham
Loach Minnow	T	Yes	Yes	10/28/86 3/8/94	Graham, Greenlee Pinal
Razorback Sucker	E	Yes	No	5/22/90 3/21/94	Graham, Greenlee, Pinal
Sonora Chub	T	Yes	Yes	4/30/86	Santa Cruz
Spikedace	T	Yes	Yes	7/1/86 3/8/94	Graham, Greenlee, Pinal
Yaqui Catfish	T	Yes	Yes	8/31/84	Cochise
Yaqui Chub	E	Yes	Yes	8/31/84	Cochise
Yaqui Topminnow	E	No	Yes	3/11/67	Cochise
REPTILES (1)					
New Mexican Ridge-Nosed Rattlesnake	T	Yes	Yes	4/4/78	Cochise

EXHIBIT B

LIST OF THREATENED. ENDANGERED AND PROPOSED SPECIES IN COUNTIES ENCOMPASSED BY THE SAFFORD DISTRICT AS OF JANUARY 11. 1996

CONTINUED

(need to add a * ?)

	CRIT.	RECOV.	FED.	REG.	
SPECIES	STATUS	HAB.	PLAN	NOTICE	COUNTIES
BIRDS (9)					
Bald Eagle	T	No	Yes	7/12/95	All Safford Co.
California Condor	E	No	Yes	3//67	Cochise
Masked Bobwhite	E	No	Yes	3/11/67 6/2/70	Pima
Mexican Spotted Owl	T	Yes	Yes	4/11/91	All Safford Co.
Northern Aplomado Falcon	E	No	Yes	1/25/86	Cochise, Santa Cruz
Peregrine Falcon	E	No	Yes	10/13/70 6/2/70	All Safford Co.
Southwestern Willow Flycatcher	E	Prop.	No	2/27/95	All Safford Co.
Yuma Clapper Rail	E	No	Yes	3/11/67	Pinal
Whooping Crane	E	Yes	Yes	3/11/67 5/15/78	Cochise
MAMMALS (6)					
Jaguarundi	E	No	No	6/14/76	Cochise, Pima. Santa Cruz
Lesser Long-nosed Bat	E	No	No	9/30/88	Cochise, Pima, Santa Cruz, Pinal, Graham
Mexican Gray Wolf	E	No	Yes	3/11/67 3/9/78	Cochise, Pima, Santa Cruz
Mt. Graham Red Squirrel	E	Yes	Yes	6/3/87 1/5/90	Graham
Ocelot	E	No	Yes	7/21/82	Cochise, Santa Cruz. Pima
Sonoran Pronghorn	E	No	Yes	3/11/67	Pima
PROPOSED SPECIES (6)					
Cactus Ferruginious Pygmy-Owl	Prop.E	No	No	12/12/94	Graham, Greenlee. Pima, Pinal, Santa Cruz
Canelo Hills Ladies' Tresses	Prop.E	No	No	4/3/95	Cochise, Santa Cruz
Huachuca Water Umbel	Prop.E	No	No	4/3/95	Cochise, Pima. Santa Cruz
Jaguar (U.S.)	Prop.E	No	No	7/13/94	Cochise, Pima, Santa Cruz
San Wavier Talussnail	Prop.E	No	No	3/23/94	Cochise, Pima, Santa Cruz
Sonora Tiger Salamander	Prop.E	No	No	4/3/95	Cochise, Santa Cruz

TOTAL LISTED=34, TOTAL PROPOSED=6. TOTAL ENDANGERED=24, TOTAL THREATENED=10

QUESTIONS SUBMITTED
BY THE HONORABLE SIDNEY R. YATES

BUREAU OF LAND MANAGEMENT
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS

I remain disappointed with the Bureau's retreat from implementing meaningful grazing reform. I was further disappointed when I learned that the Bureau recently lowered grazing fees on its land.

Question: **Why has the Administration given up on increasing grazing fees and implementing real land management reform?**

Answer: The proposed rule included a fee formula proposal and several alternatives. The fee portion of the proposed rule generated numerous diverse and conflicting public comments. The Secretary concluded that, due to the great amount of comment received against the fee (either because it was being changed too much or too little), significant Congressional interest, and the severability of the fee and management portions of the proposed rule, it was appropriate to retain the current fee structure at this time. This provided an opportunity for Congress to consider the need to legislate a fee increase.

The management provisions of the proposed rule became effective on August 21, 1996. The Bureau has been operating under the new provisions since that time. It is important to note that BLM has been working to improve rangeland conditions before range reform started and has been pursuing this effort in the interim. As stated in the response to a previous question, a key element of the reform has been the development of standards and guidelines. These standards and guides have been developed by the BLM in concert with the Resource Advisory Councils (RACs). As a result of this coordination, we anticipate full implementation of these standards and guides by February, 1997.

One of the most contentious issues in the FY 1996 Interior bill has been a provision that would wrest management of the Mojave National Preserve from the Park Service and return it to the Bureau. Environmentalists and the Administration have been opposed to this rider, arguing that management of Mojave by BLM would lead to unacceptable exploitation of this important area.

Question: **If the Administration believes BLM allows sensitive land to be mistreated, shouldn't we remove all important land from the Bureau's control?**

Answer: BLM has a different mandate than the National Park Service (NPS). BLM is mandated by Congress to operate under the concept of multiple use. This means that in addition to providing for outstanding recreational opportunities, wilderness solitude, and quality wildlife habitat, BLM also provides for such things as domestic livestock grazing, energy and mineral development, and commercial rights of way.

We feel that BLM has done an outstanding job of managing the California Desert. That is why 7.7 million acres of newly designated wilderness have qualified as wilderness and other areas transferred to the NPS by the California Desert Protection Act are of "park quality."

Question: **Can you give this Committee an update on recent patents the Bureau has issued under the 1872 Mining Law?**

Answer: The Bureau does not issue patents since it is prohibited from doing so under under Secretarial Order 3163 of March 2, 1993. The Secretary of the Interior has signed 26 mineral patents since that date, all of which the Bureau has transmitted forward to the patentee.

Question: **What do you estimate the loss to the treasury will be this year from mining claims that pay no royalty back to the government?**

Answer: The BLM collects no data on mineral production from unpatented mining claims and the operator has no responsibility to report their production to BLM. The U.S. Bureau of Mines used to provide the BLM with estimates from its confidential industry sources. However, since closure of the U.S. Bureau of Mines this fiscal year, no data has been available.

Question: **The Omnibus appropriations bill directs the Bureau to complete processing the "grandfathered" mining claims within five years. What will be the environmental and economic impacts of this provision?**

Answer: The Omnibus bill directs the Secretary to take final action on 90% of the "grandfathered" mineral patent applications within five years of enactment. There are currently 365 cases "grandfathered," of which 35 are in formal review, 11 are before the Office of Hearings and Appeals, and 303 await a mineral examination by a Bureau certified mineral examiner. Since approvals of mining exploration and development activities are granted through the plan of operations process and not through the granting of a patent, there will be no environmental effects created by processing of "grandfathered" applications. The economic impacts of this provision are not known or defined, except that Bureau and Departmental funds will be expended to process the applications. The applicant will be required to expend funds as well to provide needed geologic, engineering, and economic data to allow the Bureau to complete the evaluation of the mining claims under the Prudent Man Rule and Test of Marketability.

QUESTIONS SUBMITTED
BY THE HONORABLE BARBARA F. VUCANOVICH

BUREAU OF LAND MANAGEMENT
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS

Current law allows federal land management agencies to enter into cooperative agreements and even to contract out management activities, with strict federal oversight. Theoretically, if the Bureau were to contract out the management activities of an area, you could then use fewer federal personnel (for oversight) and yet still meet management objectives.

Question: **Has the Bureau given any consideration to this kind of alternative to managing federal lands?**

Answer: Yes. The BLM has been working with state and counties during the land use planning process to define and describe future management for the areas. The BLM has also been coordinating their recreation program with state/county tourism and transportation planning efforts. The BLM has entered into a Memorandum of Understanding with the Western States Land Commissioners Association to further Federal/state coordination and joint management. This is intended to define broad resource management and collaborative opportunities, including data sharing, training, education, land use planning, and cooperative resource management opportunities. In this light, the BLM welcomes the opportunity to discuss and highlight some of the joint management efforts that are evolving and will be occurring on the public lands.

Question: **Would you be willing to look at contracting out management activities, perhaps as part of your "Reinventing the Bureau of Land Management" efforts?**

Answer: As part of our normal, day-to-day operations and land use planning, we are always open to furthering Federal/state coordination and joint management.

Question: **The explosion of wild horse populations is creating management difficulties in parts of my own State of Nevada, and across the Western United States. My understanding is that current law allows states to conduct round-ups of estray horses that are outside of horse management areas, Does the Bureau have any objections or concerns about states conducting these round-ups?**

Answer: Wild horses and burros that stray outside of designated herd management areas retain Federal protection under the Wild Free-Roaming Horse and Burro Act of 1971, and are not considered estray. The Bureau gives high priority to the removal of wild horses and burros which have strayed out of herd management areas or onto private lands. In addition, the Bureau continues to work closely with state governments in addressing the issue of estray livestock on public lands.

I would appreciate it if you could provide the Subcommittee with the following information:

Question 1: A breakdown of the historical and current numbers of wild horses by state.

Answer:

Wild Horse and Burro Population History
(Population at end of fiscal year)

State	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Arizona	3,740	3,858	2,669	2,196	2,300	2,352	3,224	3,707	3,653	3,653	3,726
California	5,119	2,969	3,124	3,322	3,078	3,225	3,719	5,095	4,668	4,873	4,526
Colorado	414	419	569	478	605	691	810	863	803	830	1,348
Idaho	706	492	450	432	355	356	445	410	587	545	552
Montana	157	128	128	128	128	128	121	115	144	115	144
Nevada	30569	28872	28533	28401	32067	29455	33434	34677	26664	23107	24067
New Mexico	84	75	70	28	29	29	29	32	32	69	45
Oregon	3,174	3,089	2,574	2,176	1,897	2,101	2,012	1,867	1,775	1,616	1,724
Utah	1,288	1,451	1,405	1,883	1,975	2,095	2,623	2,830	2,534	2,345	2,537
Wyoming	4,684	3,410	3,764	3,303	4,115	5,109	4,280	5,208	5,602	5,257	4,924
Totals	**49935**	**44763**	**43286**	**42347**	**46549**	**45541**	**50697**	**54804**	**46462**	**42410**	**43593**

Question 2: **A list of BLM's expenditures in each state on the wild horse program by expense categories (i.e. program management, removal, herd management, placement) for each of the past five years.**

Answer:

($ in thousands)

	FY 92				FY 93				FY 94			
STATE	Prog Mngt	Removal	Herd Mngt.	Adopt.	Prog Mngt	Removal	Herd Mngt.	Adopt.	Prog. Mngt	Removal	Herd Mngt	Adopt.
AZ	220	21	130	266	346	265	52	216	343	158	59	161
CA	280	10	77	417	308	209	170	500	299	88	159	564
CO	140	36	38	364	153	93	79	142	170	113	92	110
ES	233	0	3	1219	343	19	11	1377	435	15	22	1531
ID	42	35	82	46	126	11	111	39	311	6	1	1
MT	88	6	35	841	110	24	7	456	95	53	43	37
NV	545	20	1270	946	1025	1796	1356	1219	1464	1409	1108	2381
NM	370	5	24	1573	200	75	108	877	223	19	60	178
OR	129	6	89	393	179	194	102	351	134	172	135	332
UT	100	22	110	67	157	152	116	83	193	108	157	130
WY	201	21	179	294	387	267	186	301	490	264	209	274

	FY 95A				FY 96B			
STATE	Prog. Mngt.	Removal	Herd Mngt.	Adopt.	Prog. Mngt.	Removal	Herd Mngt.	Adopt.
AZ	267	76	NA	170	123	24	NA	72
CA	339	63	NA	563	190	105	NA	230
CO	284	117	NA	76	111	43	NA	65
ES	400	60	NA	1443	156	6	NA	822
ID	42	72	NA	50	9	1	NA	13
MT	127	26	NA	41	66	0	NA	8
NV	2956	2121	NA	2029	919	655	NA	1093
NM	243	74	NA	478	30	0	NA	204
OR	228	61	NA	278	92	138	NA	179
UT	304	188	NA	99	117	31	NA	28
WY	334	507	NA	149	187	194	NA	98

A: In 1995, fund coding for wild horse and burro management was revised and the number of charge codes was reduced to three elements: program management, gathers, and adoptions. Under current coding, all wild horse and burro management not associated with the gather and adoption of wild horses and burros is coded to program management including all labor, facilities, research, the sanctuary and census.

B: FY 96 expenditures made through March 31, 1996.

Question 3: **The reasons for the 105 percent increase in wild horse program management costs from FY90 to FY94 (particularly given the fact that total program expenditures grew by only 25 percent). What, if anything, has been done during the past two years to reduce wild horse program management costs?**

Answer: The wild horse and burro program management code includes labor costs, operations (aside from gathers and adoptions) and field management efforts. The identified increase in program costs results from changes in moving more responsibility and personnel to the field offices and a greater emphasis in on-the-ground management aimed at improving monitoring and establishing appropriate management levels. This has resulted in a streamlined program with reduced overhead at the Washington and State Office levels.

Increased program management costs between 1990 and 1994 are also attributable to program initiatives. Research to develop a wild horse fertility vaccine was initiated in 1992 and those costs are charged to the program management code. Also, costs associated with efforts to close the wild horse sanctuary in Oklahoma are charged to this code.

In 1995, fund coding for wild horse and burro management was revised and the number of charge codes was reduced to three elements: program management, gathers, and adoptions. Under current coding, all wild horse and burro management not associated with the gather and adoption of wild horses and burros is coded to program management including all labor, facilities, research, the sanctuary and census.

Question 4: **A state by state estimate of the numbers of wild horses on public lands in excess of numbers anticipated in horse management plans.**

Answer:

Current and Appropriate Management Levels by State

State	**Current Populations**	**Appropriate Management Level**	**Excess Animals**
Arizona	3,726	2,155	1,571
California	4,526	2,469	2,057
Colorado	1,348	487	861
Idaho	552	581	(29)
Montana	144	121	23
Nevada	24,067	14,430	9,637
New Mexico	45	50	(5)
Oregon	1,724	2,023	(299)
Utah	2,537	1,784	753
Wyoming	4,924	3,053	1,871
Totals	**43,593**	**27,153**	**16,440**

Question 5: **A state by state estimate of legal costs for services provided to BLM by the Justice Department on public land matters during the last five years.**

Answer: The BLM does not track the costs of the Justice Department. However for high visibility issues we do have some estimates as follows:

Public Land Legal Foundation (section 8 consultation grazing) - $50,000;
Grazing Regs. Suit - $100,000
Desert Tortoise Suit - $40,000
Desert Tortoise Injunction - $10,000
Fallini cases (NV water) - $70,000
Nye County (County Rights) - $40,000

There are other issues that the DOJ has assisted with such as wild horse & burros and hazardous waste. It is estimated just for the state of CA that $45,000 has been funded for the wild horse and burro program. No further data is available at this time on Justice Department legal costs provided to BLM.

Question 6: **Why does it cost $400,000 to administer the Payments-in-lieu-of-taxes program? What tasks are involved in administration of the program? Please provide the Committee with a detailed breakdown of costs and staffing to administer the PILT program.**

Answer: The Bureau of Land Management (BLM) has been designated by the Secretary of the Interior to be the administering agency for the PILT program. Since the BLM is dedicated to ensuring that PILT payments are made on an accurate and timely basis, the amount of administration expense funds needed to accomplish this goal may vary from year to year.

The various tasks involved in administering the PILT program include, but are not limited to, data collection, data verification, computation/distribution of payments and production/distribution of PILT summary payment books. The administrative expense funds are used by the BLM to defray the cost of personnel compensation, personnel benefits, travel, printing/reproduction, computer time/equipment and other miscellaneous costs associated with contracts for data acquisition, processing and verification.

The miscellaneous costs associated with contracts for data acquisition, processing and verification is the category that has historically caused the greatest fluctuation in the amount of administration expense funds needed to administer the PILT program. It is not totally clear at this time what the administrative expense requirements of implementing the recent changes to the PILT Act mandated by P.L. 103-397 (a law aimed at increasing PILT payments to local governments) will be. It is expected that the expense will rise since the new law requires BLM to gather and track new data related to state owned, as well as Federally owned entitlement land and inflation. In addition to this, funding will be required to complete the PILT report required by Congress. Contracting assistance will be necessary to develop this report, so that total administrative expenses will be approximately $400,000.

Fiscal Year 1995 PILT administration expenses were below normal. A breakdown is as follows:

Personnel compensation	$101,000
Personnel benefits	$ 15,000
Travel	$ 2,000
Printing and reproduction	$ 9,000
Computer time/equipment	$ 5,000
Miscellaneous costs	$ 88,000
TOTAL	$220,000

Question 7: The $1.0 million increase in rangeland management has been planned to help implement rangeland management strategies recommended by BLM Resource Advisory Councils. What rangeland management strategies have been recommended by the RACs? To what extent are

these strategies compatible with existing land use plans?

Answer: BLM is presently working with each of the 24 RACs to develop standards for rangeland health and guidelines for grazing use. The RACs and BLM will then work with members of the interested public to ensure full public participation and involvement in developing final standards and guidelines. These will be implemented through land use plans and the terms and conditions of grazing permits. Preliminary indications are that many of the standards and guidelines are consistent with existing land use plans.

Question 8: Please provide the Committee with a state by state breakdown of the staffing commitments and costs incurred by BLM in support of Resource Advisory Councils since their inception.

Answer: BLM estimates that each RAC costs $50,000 to administer, manage, and maintain (with the exception of Alaska which because of travel costs and distances, $75,000 was estimated). After 8 months, we have spent approximately $37,500 per RAC. Multiplying $ 37,500 by the number of RACs in each state, the estimated total expenditure to date is:

Alaska:	$56,250
Arizona:	37,500
California:	112,500
Colorado:	112,500
Idaho:	112,500
Montana/Dakotas	140,000
Nevada	112,500
New Mexico	37,500
Oregon:	112,500
Utah:	37,500
Wyoming:	37,500

Question 9: A recent decision by an administrative law judge in Nevada upheld a grazing permittee's appeal of a BLM District Manager's decision to reduce grazing preference. The judge wrote in his decision that BLM did not have adequate data to substantiate its administrative decision. The permittee spent several hundred thousand dollars in legal and consulting fees to substantiate his appeal, What, if any, commitments to collecting the data necessary to arrive at scientifically defensible administrative decisions are demonstrated by the Bureau's proposed 1997 budget?

Answer: We do not agree with the conclusion that the BLM failed to observe good science in the collection and analysis of data supporting the decision of the District Manager. It is interesting to note that the Federal District Court had refused to issue an injunction on the merits of the case before the hearing by an administrative law judge. The BLM has appealed the case to the Interior Board of Land Appeals (IBLA) for review and has petitioned the IBLA to make the District Managers Decision effective pending the final determination in the case. Field conservationists are trained in the collection of data using approved science and methodology for taking samples of key forage species to evaluate management decisions. The BLM has been devoting about 18 percent of annual range management budgets to use monitoring and ecological site inventory.

Question 10: **Please provide the Committee with a breakdown of BLM vs. non-BLM fires responded to by BLM and BLM vs. non-BLM acres burned for fires responded to by BLM during the past five years.**

Answer: BLM responses (fires) in direct protection of Bureau land for the years 1991 - 1995 are: 12,166. Resultant acres burned are: BLM=2,634,871; non-BLM=1,021,784. BLM responses (fires) under formal agreement to protect others' lands for the years 1991 - 1995 are: 2,110; resultant acres burned: BLM= 164,781; non-BLM= 1,756,732.

In addition, BLM provided support action to 5,565 incidents for the years 1991 - 1995 to other agencies (Federal, state, and local). Because these are support actions, the Bureau does not have data on the number of acres that were involved with these assistance fires. Support actions (fires BLM responds to upon request) are authorized under national, state and local agreements. An example of support actions would be the BLM providing assistance to Nevada Division of Forestry or Truckee Meadows on a Sierra Front fire out of Reno not involving Bureau lands.

Question 11: **Please provide the Committee with an analysis of those factors and their related cost which are responsible for a $12.0 million increase in wildland fire management cost projected for FY97.**

Answer: Fire suppression operations funding is based upon the average suppression costs for the last 10 years. $2.8 million of the $12 million will provide funding in actual fire suppression based on the 10 years average (not adjusted for inflation). $4.2 million of the $12 million is targeted for the Preparedness and Fire Use Operations activity, specifically to fund 84% of Most Efficient Level (MEL). This MEL is a funding concept that was adopted in 1996 as the method to develop the Interior wildland fire management program funding level. It represents the funding necessary to cover planned interagency fire staffing, fire facilities, and equipment in providing the most cost efficient, technically effective fire management program that meets resource objectives, and minimizes costs of suppression and resource damages associated with wildfires. Maintaining the ecological role of fire is an essential element in the MEL concept. It involves reducing unnatural fuel buildups and maintaining the diversity and stability of the lands, which reduces the risk and impacts from unnatural wildfire conflagrations. MEL calculations are not constant due to changing resource objectives, values to be protected, land acquisition, costs associated with the wildland/urban interface, increasing human-caused fire occurrence associated with population growth, and continued hazardous fuels buildups. Based upon a 1993 survey of the condition of wildland fire facilities, a twenty year program was developed to renovate and construct fire facilities needed in the protection of health and safety, and in improving efficiencies and effectiveness. In FY 1997, $5.0 million is targeted for renovation and construction of facilities such as dispatch centers, fire guard stations, crew quarters and fire lookouts.

Question 12: **Please provide the Committee with a state by state listing of active cooperative agreements of contracts for land management functions with state and county governments.**

Answer: We are pleased to attach an extract from our partnership national-level database. There are also numerous other agreements that support fire suppression activities and law enforcement activities. Lists for these two kinds of agreements are not readily available but will be forwarded when compiled.

Question 13: **Please provide the Committee with a state by state estimate of the federal cost savings which have accrued as a result of active cooperation agreements and contracts with state and counties for land management.**

Answer: In the case of fire management agreements, it is difficult to accurately quantify the savings. Agreements frequently improve health and safety aspects of fire activities which improves the effectiveness of our operations and reduces the loss of life, property, and compensation claims. They provide for sharing of resources thus reducing duplication. Agreements are also used to establish standards which improve operational efficiencies. They also provide for sharing of technology, specialized personnel, training, and procurement and contract of scarce and expensive goods and services.

Question 14: **What data collection is required under excising BLM land use plans (i.e. vegetative inventories and monitoring) and how does the FY97 budget request help the BLM meet these requirements?**

Answer: Preparation of land use plans and other planning activities are conducted by the BLM in accordance with its published planning regulations which incorporate the land use planning requirements of FLPMA, NEPA, and other statues. Specific analytical, public participation, and process related requirements are set forth in these requirements. New planning related data must be periodically and systematically incorporated into existing plans to maintain their usefulness. Plan preparation includes: scoping, inventory of resources, management situation analysis, formulation and assessment of alternatives, public review of draft plan and environmental document, plan selection, consistency review, protect resolution, and plan approval. Inventory includes obtaining mostly existing data, which is necessary to support sound scientific evaluation of impacts of various alternatives and to support the decision. The type of data collection required generally depends upon two factors: kinds of resources present in the planning unit and the amount of data available about current resource conditions and changes in their condition over time. Regional land use plans do not contain specific data collection requirements but require them through the management objectives and actions chosen. For example, management objectives for livestock grazing management could include the following: 1) improve forage production and ecological conditions for the benefit of livestock use, wildlife habitat, watershed and riparian areas, 2) maintain, improve or restore riparian habitat to enhance forage conditions, wildlife habitat and stream quality, and 3) achieve proper functioning condition or better on 75 percent of riparian areas. BLM has been reevaluating way to streamline the planning process. Much of the new focus is on emphasizing the land management objectives and the desired results to be achieved from land use planning as opposed to the process that is used to get there. The FY97 budget request will assist in the continuing effort to the interdisciplinary resource planning approach and coordination with state, local, and other Federal agencies, interest groups and the concerned public.

Question 15: **What was the amount of Bureau of Land Management funding for approving operating plans and providing environmental monitoring of field activities in FY 1995, in 1990, and 1985?**

Answer: In 1995, the BLM's financial management system was simplified to reduce overhead and make more resources available to on-the-ground resource management activities. The BLM's current system does not provide the exact information requested. However, we do have cost information for the following two broad functions:

* Responding to internal and external demand in the form of issuing

leases, sales, grants, permits, operational approvals, and all other forms of use authorizations. This includes the entire spectrum of processing beginning with from initial case file establishment to decision on the application—including records management, necessary NEPA or other analyses, clearances, and consultations as required by law, regulations, or policy; processing protests, contests and appeals when related to use authorizations. Also includes responding to public requests for information and services.

* Assuring conformance with terms and conditions of an approved use authorization or enforcing laws and regulations against unauthorized uses. This includes all forms of surveillance and compliance checks (including the inspection and enforcement actions in the minerals programs).

Therefore, the comparison of 1995 to previous years may not be entirely accurate since the 1995 data include a certain amount of costs not reflected in pre-1995 data. We do believe that the trend is correct, that we are spending more funds on-the-ground than ever before. We also assume that your question is in the context of minerals-related activities, and therefore the data presented below include the following programs: Oil and Gas Management, Coal Management, Other Minerals Management, and Mining Law Administration.

The following table summarizes the data:

Year	Amount ($ millions)
1995	$37.26
1990	$23.47
1985	$23.00

Question 16: **How many mining plans of operation has BLM processed each year for the past 10 years?**

Answer: The following table summarizes our processing history:

1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
398	426	456	469	503	437	445	455	331	278	155

Question 17: **How many mining plans of operation are deferred one or more years in the past 10 years?**

Answer: We do not know the number of plans deferred more than one year. As of January, 1996 we know that there are a total of 15 plans deferred and

62 notices deferred.

Question 18:	**How many active operations are approved and begin each year for the past 10 years?**
Answer:	We do not maintain records by year for this kind of data. However, at the end of FY 1995 there were 6,849 active operations under the mining law.
Question 19:	**In some cases, it has taken the BLM over five years to approve mining plans of operations. Why are there time delays in approving mining plans of operations and in making lease decisions?**
Answer:	There are generally three types of delay; administrative, unforeseen circumstances, and public interest/protest.

Administrative Delays
These arise from a number of sources, the most important of which are budgetary constraints. Insufficient budgets are manifested at the field office level by a shortage of funding and a resultant insufficient number of authorized personnel. Insufficient personnel and funding can add up to a year of time to complete an analysis of environmental impacts. If cumulative impact or area-wide studies must be carried out and funding is not available, the delay may become even longer. The only assured way to prevent administrative delays is to ensure sufficient funding of the agency, or to have the project proponent pay for most of the costs of performing a NEPA analysis of the project. Absent these two options, we know of no other way that the industry can be reasonably assured of expeditious EIS preparation and decision making.

Unforeseen Circumstances
Delays from unforeseen circumstances result when neither the agency nor the project proponent fully consider the nature and scope of information needed for meaningful NEPA analysis. In some instances, these delays have added an additional six to seven months worth of additional studies that must be performed while the EIS is already underway. Providing sufficient data in advance of the NEPA analysis will help to eliminate the delays.

The only apparent solution is for the industry and the regulators (both State and Federal) to cooperatively agree on the amount and types of data needed. This is done, along with the participation of the public, as a part of NEPA's scoping process. If we seek to avoid undue delay, a method of obtaining necessary information while a project is being designed and while the final project proposal is being developed is the only practical solution. Either heightened individual contacts between project proponents and the agency during the design phase of the operation, or the public development of general guidelines for all project proponents needs to occur. We favor the latter approach, but we also welcome the increased contact between project proponents and the regulators.

Question 20: **Although mining companies often pay for environmental impact studies, lengthy delays still occur. How many environmental impact statements are and have been funded by mining companies?**

Answer: Over the past ten years, there have been 53 environmental impact statements funded by mining companies. The following table summarizes the distribution of these documents:

Alaska	Arizona	California	Montana	Nevada	New Mexico	Oregon	Utah	Wyoming	Total
1	2	14	4	21	3	6	1	1	53

Question 21: **To what extent is the Bureau of Land Management allowed to transfer mining law administration money to other programs?**

Answer: BLM may not transfer money out of the mining law account.

Question 22: **To what extent has funding for minerals been spent on other programs?**

Answer: No funds have been transferred from minerals activities to other non-mineral programs.

Question 23: **Would increased funding be spent on minerals operations, environmental studies, and monitoring or would it be reprogrammed?**

Answer: No, the funds would not be reprogrammed. They would be spent on minerals programs.

Question 24: **I would like to know what your future plans are for the Air Tanker Base program providing aviation support on the Sierra Front. I have heard that you are discussing moving to out of Minden and consolidating at Stead. Could you please provide all relevant details (including cost estimates) relating to your decision in this matter?**

Answer: The Bureau is currently involved with a national interagency airtanker study which won't be completed until later this year. The objective of the study is to improve the economic efficiencies and operational effectiveness of airtankers. Until the results and data from the study are available, the Bureau is not entertaining any movement of aircraft or opening and closing air tanker bases. Any recommendation from the study that might result in a decision concerning movement of resources will only be made after obtaining additional input from cooperating agencies.

THURSDAY, APRIL 25, 1996.

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE

WITNESSES

JAMES R. LYONS, UNDERSECRETARY, NATURAL RESOURCES AND ENVIRONMENT, UNITED STATES DEPARTMENT OF AGRICULTURE

JACK WARD THOMAS, CHIEF, FOREST SERVICE

DAVE UNGER, ASSOCIATE CHIEF, FOREST SERVICE

GRAY REYNOLDS, DEPUTY CHIEF, NATIONAL FOREST SYSTEM, FOREST SERVICE

JERRY SESCO, DEPUTY CHIEF, RESEARCH, FOREST SERVICE

JOAN COMANOR, DEPUTY CHIEF, STATE AND PRIVATE FORESTRY, FOREST SERVICE

KATHLEEN CONNELLY, DEPUTY CHIEF, ADMINISTRATION, FOREST SERVICE

VAL MEZAINIS, DEPUTY CHIEF, INTERNATIONAL FORESTRY, FOREST SERVICE

MARK REIMERS, DEPUTY CHIEF, PROGRAMS AND LEGISLATION, FOREST SERVICE

STEVEN SATTERFIELD, DIRECTOR, PROGRAM DEVELOPMENT AND BUDGET STAFF, FOREST SERVICE

CHAIRMAN'S OPENING REMARKS

Mr. REGULA [presiding]. We're going to call the committee to order. We're running on a tight schedule and I have to be on the floor on the Omnibus Bill, so we'll move this along as quickly as possible. Get ready Mr. Skaggs—I'll move to you as No. 1 on questions as soon as we have the opening statements.

Okay, we'll put your statements in the record and anything you'd like to say by way of summarization.

UNDERSECRETARY'S OPENING REMARKS

Mr. LYONS. Thank you, Mr. Chairman. Let me be brief because of the limited time we have and simply say we believe we are presenting to you in the Fiscal Year 1997 budget a rational and reasoned request for a minimal increase in funding. We recognize the constraints we all face as we move toward a balanced budget in the year 2002. We simply seek about a 3-percent increase, when compared to the likely action for FY 1996.

I want to point out, though, that in real terms we've been looking at about a 21-percent decrease in funding over the past few years as well a considerable decrease in staffing. We are doing our best to reduce the size of the organization while continuing to provide the level of service that is expected of the Forest Service. We have a rather daunting task.

When most people think of the Forest Service they think of the national forests and, of course, that's a significant portion of the business we do: we're managing 191 million acres. But we also have a significant role to play in assisting private landowners, in protecting their resources from fire and insect and disease, as well in assisting them in the proper stewardship of their lands. We have the world's largest research program, as you know, and albeit modest but significant programs in the international forestry area.

We face significant challenges over time. When we met yesterday, I mentioned to you a statement out of the 1995 Resources Planning Act program that reflects, I think, the diverse interests that affect the management of the national forests. It is projected that by the year 2000, Forest Service programs will contribute $130.7 billion to the gross domestic product of the United States, of which $97.8 billion would be generated by recreation; $12.9 billion by wildlife and fish; $10.1 billion by minerals, and $3.5 billion by timber. I offer that just simply to recognize the fact that there are many diverse interests that affect the national forests. We contribute a lot, not only to the Nation's softwood timber supply and hardwood timber supply, but also to the recreation programs of the United States, to providing clean water, important fish and wildlife habitat, et cetera.

It is a big job and a tremendous responsibility. We think this budget reflects the kind of balance we need to address the needs we have, recognizing the fact that we are short of funds for many important areas such as reconstruction and rehabilitation. We could always use more; we'll never have enough. We seek your support and assistance to sustain Forest Service programs in order to do the job the American public expects of us, providing goods and services from the Nation's forest lands. Thank you.

[The statement of Mr. Lyons follows:]

STATEMENT OF
JAMES R. LYONS
UNDER SECRETARY
NATURAL RESOURCES AND ENVIRONMENT
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
House Committee on Appropriations
Subcommittee on Interior and Related Agencies

April 25, 1996

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

I am pleased to appear before this Committee to discuss the President's fiscal year (FY) 1997 budget for the Forest Service. With me today is Chief Jack Ward Thomas and Associate Chief Dave Unger. Deputy Chief for Research Jerry Sesco, Deputy Chief for State & Private Forestry Joan Comanor, Deputy Chief for National Forest System Gray Reynolds, Deputy Chief for Programs & Legislation Mark Reimers, Deputy Chief for Administration Kathleen Connelly, Deputy Chief for International Forestry Val Mezainis, and Steve Satterfield, Director of Program Development & Budget are also available.

Before I speak about the FY 1997 budget, I want to briefly address the FY 1996 budget situation. The Forest Service is one of many government agencies that has operated under a series of continuing resolutions since the beginning of FY 1996. The employees of the Forest Service have continued to deliver excellent public service during this period, and I am very proud of the men and women of this agency.

When Chief Thomas came before you last year to discuss the President's FY 1996 budget request for the Forest Service, he noted that the agency budget had been trending downward since FY 1992, particularly when the effects of inflation are considered. The downward trend accelerated in FY 1996.

Congressional conference action on FY 1996 appropriations for the Forest Service will likely result in $250 million less than the President's budget request for the agency. Compared to the FY 1992 enacted appropriation and including the effects of inflation, Forest Service discretionary appropriations have declined by 21 percent. This is a very steep drop in funding, and there have been widespread impacts throughout the agency. Examples of these impacts include research work unit closures and curtailed forest and rangeland research, less technical assistance to States and private forest landowners, and diminished ability to meet the increasing demands of managing the National Forest System. Since FY 1992, Forest Service staffing has been reduced by more than 4,000 permanent employees, many of whom were directly involved in the management of the National Forests and Grasslands.

Turning to FY 1997, the President's budget request for the Forest Service discretionary appropriations is $2.237 billion, about 3% more than the FY 1996 Congressional conference action. Increased pay costs for employees and inflation will consume a large portion of the proposed increase. Consequently, there are relatively few activities or programs in this budget request that could be characterized as new or increased. Rather, the FY 1997 request reflects a modest refocusing of the agency's priorities and programs in order to better accomplish the agency's mission and strategic long-term goals in the most efficient manner. We recognize the desire of the American people for deficit reduction and streamlined government, and the budget request for the Forest Service is designed to deliver necessary products and services at the lowest possible cost.

LONG-TERM STRATEGIC DIRECTION

The Forest Service manages the 191.6 million acre National Forest System; carries out a comprehensive forest research program; and provides cooperative assistance to States, communities, and private forest landowners. In carrying out this mission, the Forest Service utilizes long-term strategic direction as required by the the Forest and Rangeland Renewable Resources Planning Act (RPA).

The RPA Assessment and Program provide a strategic framework for agency programs and budgets. In June 1994, we published an update of the Assessment of the Forest and Rangeland Situation in the United States. In October 1994, Chief Jack Ward Thomas published "The Forest Service Ethics and Course to the Future" which synthesized the key points of the agency's long-term strategic focus. In October of 1995, we released for public comment the draft Forest Service Program for Forests and Rangelands Resources: A Long-Term Strategic Plan. The four key goals of the "Course to the Future" and the draft 1995 RPA Program are:

- Protecting ecosystems
- Restoring deteriorated ecosystems
- Providing multiple benefits for people within the capabilities of ecosystems
- Ensuring organizational effectiveness

Let me emphasize that the purpose of these goals is to ensure that the needs of the present are met without compromising the ability of future generations to meet their needs. As we look ahead to the 21st Century, we believe that sustainable use of natural resources will be a central theme for Americans and all other peoples of the world. The goals of the RPA program provide a structure for achieving sustainable forest management. The FY 1997 President's budget supports and focuses on:

- Sustainable management of the national forests and grasslands for multiple uses, values, products and services;
- A comprehensive renewable resources research program to discover new ways to improve sustainability of the nation's forests and rangelands;
- A program of technical and financial assistance to States, communities, and private forest landowners to help improve stewardship of their lands;
- A limited program of interaction in the international forestry arena to advance the ecological and commercial viability of global forest resources which ultimately determine the quality of life for U.S. citizens.

In summary, our commitment is to meet public demands for multiple benefits and to assure the sustainability of forest and rangeland ecosystems by ensuring their health, diversity, and productivity.

BUDGET PRIORITIES

The FY 1997 budget request was designed to achieve long-term goals and to provide strategic direction by focusing dollars and people on the following components of sustainable forest management.

Science: The Foundation for Natural Resource Management

Scientific knowledge forms the foundation from which the agency's strategic goals are pursued. The demand for new knowledge is increasing relentlessly, as is the complexity of the natural resource management and policy issues to which the knowledge is applied. The Forest Service is committed to using the best available scientific information when making program and policy decisions. Generating that scientific information requires strong collaboration between Forest Service scientists and research partners in industry, universities, and organizations.

Forest Health

Forest health is of increasing concern in many areas of the United States due to forest conditions that have led to increased occurrence of insect and disease epidemics, introduction and spread of exotic species and noxious weeds, and susceptibility to catastrophic wildfires. Many forests across the country, both in public and private ownership, are increasingly subject to health problems because of a variety of factors, including stand age and overstocking.

Some prominent areas of concern include the Blue Mountains of Oregon and Washington, the Sierras in California, the northern and middle Rockies, and the Coastal Plain forests from Texas to Virginia. Examples of on-the-ground conditions generating forest health concerns include: stands of insect-killed trees in Oregon, Washington, Idaho and Alaska; infestations of southern pine beetle throughout the South; the introduction and spread of exotic species in northeastern States and the mid-Atlantic region; and the introductions of Asian gypsy moth in the Pacific Northwest and North Carolina.

Forest health improvement efforts in the FY 1997 budget are directed at the highest priority needs: reducing the most severe fuel conditions where treatment is feasible, treating the advance areas of the most severe noxious and non-indigenous weeds; and providing for priority insect and disease prevention and suppression on State and private lands. Continued cooperative international efforts will also help prevent the entry of exotic pests. Forest health monitoring is a continued priority on Federal, State, and private lands in order to identify emerging threats to healthy forests.

Restoring Deteriorated Ecosystems

In all regions of the country and on all ownerships on forested lands, timber mortality increased substantially between 1987 and 1992. The nation's rangelands are also in need of special attention. Water quality and quantity from forests and rangelands to maintain aquatic and terrestrial ecosystems must be improved. The FY 1997 budget supports restoration efforts by either maintaining funding levels compared to the FY 1996 Conference action or proposing modest increases in funding for restoration-oriented actions such as wildlife and fisheries habitat management and soil, water, and air management.

Ecologically Sustainable Production of Goods and Services

Forests and rangelands provide a broad range of uses, values, products and services to people. The Forest Service is charged with ensuring that these needs are met in ways that are sustainable. Given the need to balance the federal budget, funds are not available to meet all public demands for goods and services and simultaneously restore resource and infrastructure conditions to provide for sustained production. Therefore, priorities must be established.

Nearly one-half of the nation's wood supply comes from non-industrial private lands. Adequate supplies of timber and other forest resources are dependent on the stewardship of non-Federal forest lands. However, only 5 percent of private forest landowners have written forest management plans to guide sustainable use of their resources. The FY 1997 budget includes a substantial increase in assistance to State forestry programs and private non-industrial landowners to strengthen stewardship of non-Federal rural and urban forests.

THE FOREST SERVICE ORGANIZATION

The Forest Service is committed to strengthening the Nation's environmental, economic, and social well-being, including efforts to balance the Federal budget. We are continuing to place emphasis on actions to ensure organizational effectiveness. This comes at a time when demands for agency services are increasing. The 1993 RPA Assessment Update identifies a number of "potentially deteriorating" and "potentially serious" resource situations - rangeland, water quality and supply, short-term softwood supply, fish habitat, etc. - where greater attention and resources are needed.

To respond, the Forest Service is working hard to get the dollars down to the field level. For example, by the end of the current year, the Forest Service will have reduced staffing in the headquarters office by 25 percent. In FY 1997, the agency will continue to work to improve the efficiency and effectiveness of all aspects of its operations.

The Forest Service is continuing to improve internal work processes in order to streamline operations. Four basic principles are being employed as the agency works to enhance customer service and economize operational costs. These principles are:

- Move employees closer to the customers and the land;
- Decrease supervisor-to-employee ratios, largely by reducing mid-level supervision;
- Examine and redesign work processes to streamline operations;
- Insure coordination between activities and units within the agency.

The outcome of these efforts will be an organization that exemplifies outstanding public service while continually learning, adapting, and searching for ways to better provide service to the public.

EMERGENCY FLOOD SUPPLEMENTAL

The FY 1997 budget request assumes passage of an emergency FY 1996 supplemental appropriation, which the President recently submitted to Congress. Within this supplemental request are funds for emergency expenses related to recent natural disasters, including the severe winter flooding in the Pacific Northwest, the blizzard and subsequent flooding in the Northeast, and damaging hurricanes in the Virgin Islands. Many Forest Service facilities, roads, trails, and bridges were damaged or destroyed by these events, and are a high priority for restoration.

APPROPRIATION HIGHLIGHTS

I would like to summarize some of the highlights of actions funded in FY 1997 which support the achievement of the agency's mission and long-term strategic direction.

Forest and Rangeland Research

The Forest and Rangeland Research program focuses on providing knowledge to expand resource use opportunities, protect the ecological integrity of the Nation's natural resources, and make competing resource uses more compatible. The 1997 President's Budget funds this appropriation at $179.8 million, an increase of nearly $1.8 million over the 1996 Conference action. Research supporting implementation of the President's Forest Plan for the Pacific Northwest is funded at $7.6 million, an increase of $1.3 million, and will allow expansion of research activities in watershed assessment, adaptive management, planning, and monitoring.

The major adjustments required by the FY 1996 Conference action (19 research work units terminated, affecting about 300 employees) will continue to have repercussions in FY 1997. To further reduce costs and enhance the viability of remaining programs, Research will continue to streamline by merging additional research work units. Funds for cost-of-living adjustments and increases in other indirect research costs will be met by delaying work on some long-term studies and scaling back or terminating other lower priority research.

State and Private Forestry

The goal of the cooperative State and Private (S&PF) programs is to provide assistance on a voluntary, non-regulatory basis to help manage, protect, and use forest resources on federal, tribal, State, local, and private lands to meet domestic and international economic, social, and environmental goals.

The President's Budget is funded at $164.0 million, an increase of $27.2 million from the 1996 Conference action. Because more than half of the Nation's forests and two-thirds of its commercial timberland are privately owned, the funding invested in the State & Private Forestry appropriation is critical to achieving sustainable forest management. Funding increases will support and extend cooperative efforts in forest stewardship and the stewardship incentives program.

National Forest System

The goal of the programs funded by the National Forest System (NFS) appropriation is to provide for the protection, management and utilization of approximately 191.6 million acres of national forests and grasslands located in 44 States, Puerto Rico and the Virgin Islands.

The FY 1997 budget for the NFS is $1.29 billion, an increase of $36 million over the 1996 Conference action. Most program areas in the National Forest System account remain at the FY 1996 Conference action level or receive small increases that are in line with expected pay cost increases. A key increase in funding is proposed for the ecosystem planning, inventory, and monitoring program in order to advance forest plan revisions as required by law, support critical inventory and monitoring efforts, and continue work on high-priority ecoregion assessments. Funding increases for subsistence management in Alaska are included, as well as additional funding for the rangeland management program.

The FY 1997 budget supports a national timber offer volume of 4.2 billion board feet. An estimated 761 million board feet of timber will be offered as a result of implementation of the President's Plan for the Pacific Northwest, the full level of sustainable timber harvest envisioned by the Forest Plan (not including volume from Bureau of Land Management lands). Timber will be offered for sale in all Forest Service regions in compliance with all applicable environmental and resource management laws. Of the total FY 1997 volume of 4.2 billion board feet, 1.4 billion would be from salvage sales. Salvage sales will continue to be implemented according to the emergency salvage provisions of Section 2001 of P.L. 104-19 (FY 1995 Rescissions Act) and the direction of the President until expiration of the provisions on December 31, 1996. We will, throughout FY 1997, emphasize an ecologically-sound high-priority salvage program.

The Forest Service is the largest single supplier of public outdoor recreation in the Nation and provides 42 percent of the total recreational use occurring on Federal lands. The national forests provide the setting and recreational infrastructure for tourism, which contributes to local economies. The FY 1997 budget maintains funding at the FY 1996 Conference level.

The national forests and grasslands provide habitats for more than 3,000 species of birds, mammals, reptiles, fish, and amphibians, as well as for more than 2,000 rare plant species and 238 Federally listed species. The National Forest System is also increasingly used by people to watch and photograph wildlife, study nature, and hunt and fish. The FY 1997 budget will maintain wildlife and fisheries habitat management programs at about the FY 1996 level, and support additional required subsistence management activities in Alaska.

The FY 1997 budget will support an increased emphasis on determining the condition of watersheds and sustaining riparian-area health. Priority watershed improvements will be undertaken, and monitoring and evaluation will be conducted on highly sensitive or controversial projects to assure management practices are effectively protecting and sustaining soil, water and air resources.

Wildland Fire Management

The goals of the Wildland Fire Management program are to provide fire management, presuppression, and suppression on National Forest System lands, adjacent State and private lands, and other lands under fire protection agreement.

The Wildland Fire Management appropriation is funded at $385.5 million, the same level as the FY 1996 Conference action. This funding will support fuels management activities, fire presuppression, and fire suppression operations. However, in the event that catastrophic fire incidents force extensive fire suppression expenditures, the proposed budget could require supplementation. The Forest Service continues to vigorously pursue ways to reduce fire suppression costs while providing for firefighter and public safety and protecting valuable natural resources.

Reconstruction and Construction

The Reconstruction and Construction appropriation provides for restoration, construction, and improvement of buildings, utility systems, dams, recreation facilities, roads, bridges, trails, and other physical facilities, and acquisition of administrative sites.

This appropriation is funded at $169.7 million, an increase of $6.2 million from the 1996 Conference action. The agency will focus available funding on extensive reconstruction needs. There will therefore be little funding available for construction of new facilities. The increase in funding over the FY 1996 level will enable the restoration of some of the most degraded recreation sites, and support the provision of adequate facilities near urban areas where recent visitor use increases have been concentrated.

Road reconstruction and construction is funded at the minimum needed to support proposed resource plans with priority given to ensuring safe access. The Forest Service is attempting to ensure that roads, bridges, and culverts will accommodate more severe climatic events, i.e., increasing standards from an ability to withstand a twenty-five year flood to a hundred year flood. Road reconstruction projects are focused on reducing impacts on water quality or assuring public safety.

Land Acquisition - Land and Water Conservation Fund

The Land Acquisition appropriation provides for the acquisition of lands and interests for high priority recreation and conservation opportunities within the national forest system.

Land Acquisition is funded at $41.2 million, the same level as the 1996 Conference action. The acquisition of approximately 25,000 acres is planned. This will allow for protection of critical wildlife habitat, cultural and historic values, Congressionally designated areas.

Permanent and Trust Funds

Other funds associated with the 1997 budget include the use of permanent and trust funds which are combined with appropriated Forest Service funds to accomplish common resource activities. These funds, especially the Salvage Sale Fund, are closely related to the programs discussed above. Trust fund balances are declining as timber harvests decline. The salvage sale fund level is projected at a somewhat lower level than in 1996 due to the expiration of the FY 1995 Rescission Act Salvage logging rider and decreased fire activity in 1995. This level ultimately will depend on the salvage opportunities that become available.

SUMMARY

The President's FY 1997 budget request for the Forest Service has been prioritized to focus on the most critical needs at hand, while recognizing the limits on available funding. There continues to be an urgent need to work on some severe forest health situations and to restore ecosystems. The need to do more comprehensive analysis before project implementation and to ensure that science is appropriately used in problem solving is a real and growing cost for the agency. These are among the difficult issues the Forest Service faces as they develop and carry out budgets to implement agency programs.

This concludes my testimony. Chief Thomas and I would be happy to answer any questions.

CHIEF'S OPENING REMARKS

Mr. REGULA. Mr. Thomas, would you like to make some comments?

Mr. LYONS. Do you want to introduce the crowd?

Mr. THOMAS. Well, let me introduce those who I have with me and can answer individual questions, and especially Dave Unger, Associate Chief; Gray Reynolds, Deputy Chief, National Forest System; Jerry Sesco, Deputy Chief, Research; Joan Comanor, Deputy Chief, State and Private Forestry; Kathleen Connelly, Deputy Chief for Administration; Val Mezainis, Deputy Chief for International Forestry; and Mark Reimers, Deputy Chief for Programs and Legislation. We also have with us Steve Satterfield, Director of Program Development and Budget.

First, I think that the opening statement is adequate; but I would bring a few things to bear—and maybe we'll get to them again later. We are building huge deficits while recreation, as Mr. Lyons has pointed out, is shooting up like a rocket. We are falling further and further behind in the maintenance of our infrastructure.

Mr. REGULA. I understand that.

WILDLAND FIRE FIGHTING

Mr. THOMAS. And we just need to know that. The other thing is that I am beginning to build some considerable nervousness about our capabilities in the fire arena. We have borrowed almost $400 million from Knutson-Vandenburg funds to fight fire, which has not been replaced. I think it's time that—not in this budget—but I think it's time that we begin to consider together a more realistic way of how we view and fund our firefighting operations. I would like to see us evolve in a more realistic way. We know that fire fighting will evolve into fire management. We must begin to move in that direction and look more realistically at what it really costs us year-in and year-out in terms of fire prevention and fire suppression.

We have a tendency not to spend much up front on dealing with fire situations but, of course, when it blows, the pressure is on from every direction to get it out no matter what. I would like to start a dialog today and proceed with a more realistic view of how we do that. We do need to point out that because of reductions in that particular line item, if we have a bad fire season, or even a normal fire season, we will be much more dependent on our regular workforce for firefighting than we have been in the past few years. It was desperate enough that they even gave me a red card; they told me not to get close to the fire, but I could drive a truck. I think they don't know how well I drive, either.

Mr. REGULA. You could recruit the gentleman from Colorado.

Mr. SKAGGS. Then they'd be in real trouble.

DOWNSIZING

Mr. THOMAS. But those are the things. I would make one compliment to our employees. In these last several years, it's been fairly strenuous as we downsized from nearly 44,000 down to less than 40,000 and still continuing down. It's caused a lot of upset and we can never quite get settled. But they've kept a good sense of humor about it in meeting their targets, and we're doing a pretty good job, I think, under the circumstances. But I do look forward to a time when it might settle down to where we can stabilize the organization, and I think that would help a lot.

Good morning, sir.

Mr. SKEEN. Good morning.

Mr. THOMAS. How are the Aggies this week?

Mr. SKEEN. They're all up.

Mr. THOMAS. All right.

FOREST FIRES AND CONTROLLED BURNS

Mr. REGULA. Thank you. A couple of questions, then we'll go to the other members. One is, some say that forest fires are part of nature's regeneration process. Are your activities driven at all by the public perception of a fire as opposed to the need for some instances to have controlled burning?

Mr. THOMAS. Yes, sir. I can differentiate very clearly between the two. Yes, fire is a part of the ecosystem. But right now, in much of the West, we have fuel build-ups from long-term fire protection such that when they burn, they burn much hotter and much faster and much more destructively than they have historically. It's a situation that we got into over a 50- or 60-year period. It's going to take us a number of years to get out. Some of that's going to happen no matter what we do, but we do need to start reducing those fuel loads through controlled burning. Now, fire ecologists will tell you that this is not going to be easy—you get smoke in the air; people don't like that. But as an ecologist, I will tell you that you get a lot of smoke every once in a while or a little smoke continuously, because it will burn sooner or later and we hope in a more constructive fashion.

But we have a tendency to lurch from one extreme to the other. Fifty years ago, the solution was to put out every fire. Now the solution to everything is burning. Neither one of those were correct, in my opinion. But we do need a considerably more balanced program.

WILDLAND-URBAN INTERFACE

Now, in terms of public perception, fire is dangerous. And we have a particular problem as the country's population increases and civilization is moving in on what we call the "urban wildland interface." No matter what we say when that fire starts, the pressure is on to make sure we first protect human life, then protect property. That sometimes leads us to make decisions that leave our natural resources—the forests—considerably more vulnerable than they would be otherwise.

This is one of the things that I wanted to bring up in the dialog when we started: how we deal with that wildland-urban forest interface. Who pays? Who fights it? For example, our firefighters are not trained in, and are essentially prohibited from, fighting structural fires: don't go into something you're not trained to do. But when we stand back and something blows, it doesn't play well with the public. This is an issue that has been simmering for a long time and is becoming explosive, both in terms of the potential fire situation and our unwillingness to face up to the consequences.

Mr. REGULA. I can see that. In the West I've just observed—my daughter lived in Colorado—a lot of homes sticking up along the hillsides and suddenly they're in the path of what you're talking about in terms of fire.

Mr. THOMAS. Well, one I can tell you, so we can smile a little—I'll let the Senator remain anonymous—but we were discussing something and I made the statement about this was a turnover of Forest Service lands to the State and I said, "We spent more money fighting fires in your State than your State budget last year," for education or something, and he said "Well, I'm not so sure we shouldn't just let those fires burn." And I said, "Senator, are you the same guy that got me out of bed at 1:30 in the morning demanding that I go to your State and personally take over the operation?" So sometimes when the fire is burning one has a whole different view of the world than one does from the side.

SALVAGE TIMBER AND FUEL BUILD-UP

Mr. REGULA. Very definitely. Would the harvesting of salvage timber help in avoiding the build-up of fuel?

Mr. THOMAS. Let me address that. This leads into questions of sustainability and questions of forest health. Yes, salvage logging can be beneficial to fuel reduction. Many times, though, salvage logging is done for the very express purpose that it makes sense—it provides jobs; it provides wood to the market. So, I think we sometimes go too far when we say salvage logging is the solution to forest health and fuel build-up. Yes, it can help, particularly if it's targeted in the right places, which we're trying to do. But in and of itself, it won't do much because we don't touch that many acres in a particular year. But it can be helpful, particularly if we target it.

WILDLAND-URBAN INTERFACE

And there is this urban wildland interface all over the United States. We have a tendency to think that because Forest Service lands are primarily concentrated in the West, and the Forest Service is associated with firefighting, I assure you that if we get a big fire in Ohio, the States, our cooperators, the Forest Service, BLM, everybody will be in there fighting that fire. So it's not just a western problem; it's one that's burgeoning across the country. For example, the fires we had on Long Island, New York—who would have ever thought we would have had Forest Service firefighters taking over burns on Long Island? But that happened a year ago and they got it out within a pretty short period of time, once they were there.

Mr. REGULA. Did you have them on the scene or did you have to bring them in?

Mr. LYONS. I can tell you first-hand about that fire, Mr. Chairman. It did have something to do with a Senator, as a matter of fact.

Mr. SKEEN. Did you get him up at the right time in the morning?

Mr. LYONS. It was late one night. There were over 1,000 volunteer firefighting organizations on Long Island fighting this fire that weren't really equipped, that didn't understand what it was to figh wildland fire. They put themselves in some rather dangerous situations. Fortunately, no one was seriously injured. The Forest Service and other Federal agencies brought a number of teams in, some air support, et cetera, and did a fairly effective job of putting the fire out in a very short period of time.

But to give you some sense of the complexity of the issue, not only did we have to deal with structures interspersed in this basically pine ecotype, which is very volatile, but because of concern for the service aquifer on Long Island, we couldn't use fire retardants to attack the fire. We had to use water, and that took a while to get worked out. Ordinarily we would come in and attack as we normally would with retardant. So it emphasizes the complexities of dealing with these situations out West, and in the East. We see building right up to the national forest boundary and it makes it that much more difficult.

TIMBER MANAGEMENT

Mr. REGULA. Last question, for the moment: the Sierra Club has come out, as I understand it, and announced a national policy of no more cutting of timber in the national forests. How do you react to that? What's your observation?

Mr. THOMAS. It very obviously indicates that we have a very strong split in the American public, who all have a piece of these lands, as to what they should be managed for and how they should be managed. And the response that I've given is, as of right now—given the Organic Act, the Multiple Use Sustained Yield Act—timber management is part of our program, although it's considerably less than it was. We intend to continue timber management as a part of our program, but I suppose this is going to be part of the political scene for a while.

I can give you my personal opinion. I've given you laws and a Forest Service opinion. I think we have a role in the supply of timber in the United States and I would hope that we would fully continue that under the multiple-use concept and in compliance with law. I think we can do that; I think that's a rational management course. But, of course, these are citizens and they have a right to get their oar in.

GROSS DOMESTIC PRODUCT AND NATIONAL FOREST SYSTEM

Mr. REGULA. Mr. Skaggs.

Mr. SKAGGS. Thank you, Mr. Chairman.

Mr. Lyons, I want to go back to something you had in your opening statement about your analysis of various contributions to GDP derived from national forest lands. I tried to take notes, but I must have missed something somewhere. So, could you just go over those numbers again, please?

Mr. LYONS. Okay, I can do that. And these come from Resources Planning Act program documents which the Forest Service generates every five years under the Act's requirements. It was projected that by the year 2000, Forest Service programs would contribute $130.7 billion to the gross domestic product, of which $97.8 billion would be generated by recreation, $12.9 billion by wildlife and fish, $10.1 billion by minerals, and $3.5 billion by timber.

Mr. DICKS. Three point five?

Mr. SKAGGS. Those don't add. Something else is missing there; that's what got me going over these. But I assume the orders of magnitude are roughly correct.

Mr. LYONS. I think that's the important point.

Mr. SKAGGS. Right. And I'm just astounded that the timber component of the GDP contribution you've just parsed out is 3 or 4 percent.

Mr. LYONS. Well, that actually reflects current circumstances. What needs to be recognized is that—a little known fact—we provide more recreation than any other entity in the Federal Government, more than the Park Service and other parts of the Interior Department. There's tremendous recreation use of and interest in the national forests, and, of course, there are multiplier effects that lead to the contributions to the GDP—everything from the equipment that's purchased, et cetera.

You know, we're an end-product. So there's a lot of investment that occurs before people get out to recreate, whether it's purchasing equipment or purchasing airline tickets and hotel rooms, et cetera. And I think that contributes to it.

On the other end, in terms of timber, we get out of that process fairly early. We supply raw materials and, therefore, the multiplier effect is not as great. But the point is, relatively speaking, other values, as Jack pointed out, are growing in interest and impact on forest management. The challenge we face is to adjust our budgets to provide certainty, in terms of source of materials, to those constituencies we traditionally serve—the timber industry, the mining and minerals industry, et cetera—while at the same time to adjust to reflect increasing and new demands on the national forest system.

Mr. SKAGGS. Well, I'd appreciate it if you could provide for the record some more detail about both the analysis and conclusions as well as the methodology that was employed in generating those numbers. But, assuming that there could be an understatement by 100 percent on the timber side and an overstatement by 100 percent on the recreation side, it's still 5 to 1, so it's really a remarkable snapshot.

[The information follows:]

ECONOMIC IMPACTS OF FOREST SERVICE PROGRAMS

The USDA Forest Service plays a significant role in managing forests and rangelands and producing resource outputs that provide a variety of goods and services for the American public. The economic effects of these goods and services can be described by several measures, each contributing unique information. The Draft RPA Program presents three measures of economic effects: 1) benefit-cost analysis; 2) returns to Treasury; and 3) employment and income impacts. The benefit-cost analysis compares the cost of Forest Service programs to the benefits generated by those programs. Returns to Treasury are receipts to the government from sales of outputs and fees for services on the National Forests and Grasslands. The employment and income effects are the subject of this paper.

The economic impacts resulting from Forest Service programs like timber, grazing, and recreation create ripple effects throughout the economy with measureable impacts at local, regional, and national scales. The economic impacts from Forest Service activities are often summarized as contributions to employment and income. At the national level, the most relevant measure of income is the contribution to Gross Domestic Product (GDP): the value added to the economy of domestic production of goods and services.

MODELING ECONOMIC IMPACTS

Forest Service estimates of the contributions to employment and GDP are developed using an input-output model of the national economy. Input-output models use a well-defined system of accounts to quantify the flow of commodities between industries in the economy. In short, industries within an economy buy from and sell products to each other, and household members (people) work for and buy from these industries. The basic input-output model tracks the production process from raw material inputs to production of final goods and services. In effect, the input-output model is a snapshot of the economic interrelationships of our national economy.

The Impact Analysis for Planning (IMPLAN) model has been the standard USDA Forest Service input-output analysis tool since 1979. It combines a system of economic accounts with tools for economic analysis and forecasting. IMPLAN is valuable as a descriptive tool to explore and understand the current economic interrelationships in local or regional economies. As an analysis tool, IMPLAN is used to estimate economic impacts, such as those associated with major policy initiatives at regional and national levels.

IMPLAN has broad technical credibility across Agency and institutional boundaries for a variety of applications. The Federal Emergency Management Agency uses IMPLAN to evaluate alternative strategies following disasters. IMPLAN provides estimates of regional economic impacts of recreational use at reservoirs and river systems for the Corps of Engineers. Other applications include the evaluation of structural changes in the economy, the evaluation of import and export relationships for trade studies, and the development of international models.

IMPLAN can be used to capture the cumulative effects of economic activity stimulated by Forest Service programs. These cumulative effects are composed of direct, indirect and induced effects. The direct effects capture the initial economic stimulus on the original industry in response to a Forest Service action (e.g., sawmill production stimulated by stumpage sale). Indirect effects account for additional production by supplying industries responding to the input needs of the original industry (e.g., sawmill purchases of additional fuel, trucks, equipment). Induced effects capture the increased spending level of households from increases in employment (e.g., purchases by new workers hired at sawmills and supplying industries). In summary, the economic impacts of a Forest Service action becomes the sum of the effects on the original industry plus the effects on supplying industries and wage earners as the economic stimulus ripples through the economy. IMPLAN's value as an analytic tool stems from the calculation of a multiplier that represents the accumulated total of multiple rounds of indirect and induced effects flowing throughout the economy. Once the direct effects of a program change are determined, IMPLAN is used to calculate the indirect and induced effects.

Most input-output models, including IMPLAN, account for the economic linkages moving backwards or downstream through the economy. Backward linkages occur when an industry purchases inputs for its own use. For example, a sawmill purchases electricity, tools, and other equipment in the production of lumber. Another economic linkage is forward processing which reflects sales of one industry's output to another industry. Forward processing occurs when the Forest Service sells stumpage as an input to the production of lumber at sawmills. Forward linkages are important to resource management agencies, since most of the resource outputs are primarily inputs to another stage of production. The direct effects from forward processing of resource outputs are evaluated before IMPLAN can calculate the indirect and induced effects from the backward linkages.

ECONOMIC IMPACTS IN THE DRAFT RPA PROGRAM

The contribution of the Forest Service to national GDP reflects one measure of the role the Agency plays in the national economy. Through its resource outputs and programs, the Forest Service generates significant economic activity, directly and indirectly, that ripples through the economy supporting a variety of industries, including the manufacturing and service sectors. The economic impacts displayed for the different program areas reflect the relative contribution to the total from activities associated with each program.

For the Draft RPA Program, IMPLAN was used to provide estimates of the Forest Service contribution to national GDP and employment based on the strategic direction presented in the Program. Total national economic impacts (direct indirect, and induced) from Forest Service programs were evaluated for the years 2000 and 2045 based on the program costs and outputs projected in the Draft Program database (Appendix E-2). Forest Service programs stimulate economic impacts from three components of Agency activities: 1) production of resource outputs; 2) Agency direct expenditures, and 3) uses of program receipts.

The largest share of economic impacts linked to Forest Service program activities stems from the production of resource outputs from national forests and grasslands. Recreation use, timber production, grazing, mining, and wildlife and fish use all stimulate economic impacts as primary inputs to the production of a variety of goods and services in the economy. How the particular resource outputs feed into the economy determine the private sector response and the magnitude and nature of the direct, indirect, and induced effects.

been included from the milling process, so other inputs such as design, glue, nails, and labor become the dominant inputs at that stage of production. The overall economic impacts from timber production include the direct contribution to the economy of forward processing to sawmills and all the subsequent indirect and induced effects that ripple through the economy.

As displayed in the Draft RPA Program, the national contributions to GDP from recreation are substantially larger than contributions from other resource areas. This difference is explained by several factors. The first factor is the sheer magnitude of recreation use on the national forests and grasslands. Second, recreation visitors are purchasing final consumption products (fishing equipment, clothes, etc.) as part of the recreation trip expenditures. These products require inputs from a large number of intermediate producers and exhibit extensive national economic linkages throughout the economy. By contrast, total timber GDP effects tend to be smaller than the recreation effects since the Forest Service contribution in the production stream ends at an intermediate stage. There is a less extensive network of linkages for intermediate products than is observed for final products, such as recreation. The greater the number of linkages, the more extensive the economic effects.

In regard to implications of this analysis, we believe the total national employment and income effects and the distribution of those affects among Forest Service programs provides valuable information about the relationship between the Forest Service and the national economy. However, economic impacts are just one perspective and there are many other valid perspectives and sources of information that should also be considered in evaluating Forest Service programs. These include the social and economic impacts to local communities, revenues generated, economic efficiency, historical program development and support, and actions needed to achieve desired conditions or to address urgent problems, such as forest health. Funding allocations are not based on a single dominant perspective or factor. Such decisions take into account all of the factors mentioned above, plus many more. Income and employment impacts alone do not provice a sufficient rationale on which to establish funding priorities.

We continue to evaluate the national economic effects of Forest Service programs and will analyze the economic effects of the Secretary's Recommended Program when it is developed. While we expect some changes in the absolute numbers, we do not anticipate a change in the overall relationships between and among Forest Service programs. Recreation use effects will continue to dominate the employment and income effects.

Administration of all Forest Service programs requires expenditures of funds for employee salaries and benefits and for goods and services used in Agency operations. Employee purchases of goods and services from salaries generate economic effects in local communities. Our estimates of these effects are based on a standard profile of household expenditures. The Agency also produces private sector economic effects from purchases of goods and services associated with standard day-to-day operations. For research, state and private forestry, international forestry, and other programs not linked directly to production of resource outputs, the only economic effects currently included in the Draft RPA Program analysis are from direct Agency expenditures.

Through institutional agreements with states and local governments, the Forest Service contributes a share (payments to states) of its annual collection of receipts. As these revenues are spent in the local community, often on education and roads, economic effects are realized in affected areas. In the Draft RPA Program, the economic effects from payments to states are evaluated as one aggregated total across all Forest Service programs generating revenue.

While the primary purpose of performing impact analysis for the RPA Program is to evaluate the overall effects and/or role the Forest Service plays in the national economy, it is also important to identify the effects associated with different program areas. As mentioned earlier, the majority of economic effects from Forest Service programs stem from production of resource outputs (recreation use, timber production, mining, grazing, and wildlife & fish use). Many of these outputs are used as raw inputs (forward processing) to production of goods and services in local communities surrounding national forests and in the nation as a whole. In developing the economic effects that stem from resource outputs, a concerted effort is made to evaluate each program in a consistent and comparable manner. The accounting stance adopted to insure comparability identifies where a particular Forest Service output is in the production process and the role that output plays.

In general, the Forest Service only claims economic effects from production of a particular good, when the Forest Service output is overwhelmingly important as an input to production of the good. Recreation and timber offer good examples to compare how distinctly different types of resource outputs are treated when defining their proper place in a particular production process. In the case of recreation, the Forest Service manages the recreation setting and considers that component to be the most significant or important input to production of recreation experiences. The production process of generating recreation experiences includes inputs from the recreation user in the form of trip-related expenditures and on-site expenses in the vicinity of the recreation site. Expenditures on durable goods, such as 4-wheel drive vehicles and camping trailers, are excluded because they are usually purchased off-site and their value cannot be attributed solely to a particular Forest Service recreation trip. Since the recreation experience is considered the final economic product, there is no forward processing to other goods and services. The economic impacts only include the effects of backward linkages stemming from the trip-related expenditures.

For timber, the raw log is the primary input to production of lumber at the sawmill. The economic effects include the value of all the products from the sawmill, the value associated with harvest activities, and the economic impacts stimulated through all the backward linkages in the economy. As the sawmill products move forward in the economy as inputs to other products, the importance and magnitude of the Forest Service contribution (raw log) diminishes. For the production of furniture, the value of the wood has already

RECREATION DEMAND SKYROCKETING

Mr. THOMAS. Could I make a little comment?

Mr. SKAGGS. Yes, sir.

Mr. THOMAS. One of them is that—one of the things that we should note here, and I meant to make when you gave me an opportunity to start—as we're looking at these tough budget situations, we're watching recreation demand skyrocket and that's a part of GDP. It hasn't got much to do with our budget. Now one of things that we do note is that recreation demand is going straight up; our costs of providing it, of course, are not keeping up, but are, we hope, going up a little. I think it's flat this year, but it's bigger than it was five years ago. One begins to wonder—when do we start to capture revenue off of that?

And we have in this year—and I was delighted to hear that we may have a budget and I hope our test operations at 50 sites are included—found one thing when we interview recreationalists: the majority are quite willing to pay a reasonable fee, provided that money goes to where they paid it. They are not willing to pay——

Mr. SKAGGS. Just like they buy the idea out in the parks.

Mr. THOMAS. Yes.

Mr. SKAGGS. I speculate how many of those recreational visits are from overseas and whether this is also a key to the balance of payments problem, but that's beyond your economic analysis——

Mr. THOMAS. No, I think we have some of that—particularly, Jim can give more specifics—but we provide the vast majority, in cooperation with our ski area operators, of downhill skiing in the United States. A number of people come to the United States to ski and recreate, so I think we may have some data on that.

ROAD MAINTENANCE

Mr. SKAGGS. Well, this is a good springboard into inquiry, one, about your road maintenance budget, given its service of recreational uses. As I understand it, the $84 million that you're asking for for next year will cover under 40 percent of good maintenance on existing roads. Is that roughly correct?

Mr. THOMAS. I'm going to ask Gray Reynolds to come to the table; he's the Deputy Chief of the National Forest System.

Mr. REYNOLDS. Yes, sir. Mr. Skaggs, that 40 percent is about right. As you recognize, we keep our roads classified in timber roads, general purpose roads, and recreation roads, recreation roads being those that are primarily within the national forest itself. General purpose roads are those most people use as access to get in and out of the national forests, and that's the area where we have severe problems today.

Mr. SKAGGS. So, the corollary of that is a huge deferred maintenance build-up.

Mr. THOMAS. One that—these things are actually happening right now—where we build the road, and a lot of people use it for access, of course, to landholdings and other property, et cetera. I saw some pictures the other day of school buses on some of our roads that come up to a bridge, unload the kids, walk the kids across the bridge, then the bus comes across and they get on.

Mr. SKAGGS. Heavy kids.

Mr. THOMAS. Heavy kids. Well, if that bridge were to go, we wouldn't want those kids on that bus.

Mr. SKAGGS. I'm being facetious. [Laughter.]

Mr. REGULA. Would you yield? Do you get help from townships or counties or States on this?

Mr. THOMAS. Watch what happens, though. We do, but watch. Most of that road maintenance money that goes to the States comes from the 25-percent fee related to livestock raising and timber. As the timber program has gone down, and these other uses have gone up, that's the primary source our cooperators would use to maintain roads.

Mr. REGULA. So you've really got a tug and pull between your recreation side versus the production side?

Mr. REYNOLDS. That's right. And most of the public using the national forests for recreation are using our general purpose roads. And as we continue to defer the maintenance share year after year after year, pretty soon those roads are in such tough shape that people just can't use them anymore.

And the other point is that a lot of this deferred maintenance leads to reconstruction which, in most cases, then comes in the timber sales program to maintain the timber program. We're not building many new roads; we're primarily in a reconstruction and rehab mode.

TRAILS PROGRAM

Mr. SKAGGS. How about trail construction, reconstruction and maintenance? What's your budget for next year and anticipated there, and what's the unmet need? Have you assessed that situation?

Mr. REYNOLDS. On our trails, the information I'm looking at here for Fiscal Year 1997 shows about $26 million for trail reconstruction and construction.

Mr. SKAGGS. What did you get for 1995?

Mr. REYNOLDS. I don't have that number right here. I'll have to get back with you. I don't have that comparison. What I'm showing here is $23.4 million is reconstruction, $2.6 million in construction, for the total of $26 million for 1997.

Mr. LYONS. In 1995 it was $98,185,000; and 1996 was $95 million; our 1997 estimate is $91 million.

Mr. SKAGGS. So we're barely 25 percent of what the last two year——

Mr. LYONS. That's roads and trails in total.

Mr. SKAGGS. Oh, I'm sorry.

Mr. LYONS. Trails was about $32 million in 1995, $20 million in 1996, and we seek an increase up to $26 million.

Mr. SKAGGS. Okay, that's helpful.

Mr. THOMAS. I think the other answer, Mr. Skaggs, is that we've got about a $275 million backlog and we're behind that far.

Mr. SKAGGS. How do you define backlog?

Mr. THOMAS. Maintenance that needs to be done that we have not done, bridges that need to be replaced that we have not replaced, trails that we have closed——

Mr. SKAGGS. Roads and trails?

Mr. THOMAS. This is trails.

STEWARDSHIP PROGRAMS

Mr. SKAGGS. Trails only. If I could just ask one other item, Mr. Chairman. I wanted to ask about the stewardship programs with State and private owners and just comparing the sort of return on investment we get there versus, particularly, new roads in the national forests and what is produced in board feet by comparison.

Ms. COMANOR. We don't have a set of hard numbers that would give you a comparison. We do think we can produce timber through our activities on both Federal lands, obviously, and through assistance programs to private forest landowners. And in 1994, through our assistance programs, about 1.4 billion board feet of timber was harvested from private lands.

Mr. SKAGGS. Well, I'd seen some information that indicated, if you will, for the marginal next $1 million if you were to put it into the stewardship private incentives program versus new roads to open up new cuts in the national forests, we'd get more board feet coming to market in the first than in the second. Is that right?

Ms. COMANOR. I think we have not yet exhausted influencing private landowners in voluntary ways; there's still a lot more timber that we could produce on private lands. There's roughly 60 percent of the commercial timber base in the country in private ownership, and in the last couple of years, private landownership has produced about half the timber volume. So there's clearly an increment of timber that, through working with private landowners, we could generate. The question would be one of comparison of investments. In direct Federal investments, we would not have to pay for roadbuilding; it would just be investments in technical assistance that we would be making.

Mr. SKAGGS. If you have some numbers you can put them in for the record, about your budget for the last several years and what you're asking for and what that's leveraged in terms of board feet, privately.

Ms. COMANOR. We'd be——

Mr. SKAGGS. Thank you, Mr. Chairman.

[The information follows:]

ASSISTANCE TO PRIVATE FORESTLAND OWNERS

Technical and financial assistance to nonindustrial private forestland (NIPF) owners for timber production and other multi-resource forest practices is provided primarily through State and Private Forestry's Forest Stewardship and the Stewardship Incentives programs. These programs yield immediate economic benefits and increased resource productivity to forest landowners as well as stimulating long-term investments in sustainable forest resource management practices.

Forest Stewardship Program. The Forest Stewardship Program provides forest resource management planning as well as site-specific on-the-ground technical assistance to non-industrial private forestland owners through State forestry agencies. The program helps landowners manage, and protect forests through using sound multi-resource management planning procedures. The program reaches, on a voluntary and non-regulatory basis, some of the 9.9 million NIPF landowners who do not have Forest Stewardship plans before they harvest timber or plant trees without technical forestry advice and assistance. Less than 10 percent of private landowners have written plans to guide sustainable use of their forest based resources.

From the beginning of the program through FY 1997 (based on the FY 1997 estimate) approximately 143,800 landowners have enrolled 17.5 million acres in the Forest Stewardship Program.

Each $1 million in the Forest Stewardship Program results in pre-harvest planning about 54 million board feet harvested annually on NIPF lands. The program funding level and estimated timber harvest levels included for FY 1994 through FY 1997 is as follows:

FOREST STEWARDSHIP PROGRAM

FISCAL YEAR AND FUNDING LEVEL	ESTIMATE TIMBER PRODUCTION IN CURRENT YEAR (billion board feet)
FY 1994 ($25.8 million)	1.4
FY 1995 ($25.9 million)	1.4
FY 1996 ($23.4 million)	1.3
FY 1997 Estimate ($30.0 million)	1.6

Stewardship Incentives Program. The Forest Service's Stewardship Incentives Program (SIP program) provides cost-share assistance to eligible landowners to implement approved multi-resource forest practices on nonindustrial private forestlands. Through these practices the program leverages long-term financial assistance in the health and productivity of the Nation's nonindustrial private forests. Two of the nine multi-resource practices, SIP 2 Reforestation/Afforestation and SIP 3 Forest Improvement, directly result in increased timber volume. The remainder address other aspects of forest sustainability including wildlife and fisheries habitat, maintenance of water quality, and riparian area improvements.

The burden of timber production continues to shift from public to private lands. As a result, timber harvesting on nonindustrial private forest lands has increased significantly and has heightened the importance of the SIP program to protect and enhance multi-resource values and overall sustainability of nonindustrial private forestlands.

From the beginning of the SIP program through FY 1997 (based on the FY 1997 estimate) multi-resource forest practices will have been implemented on over 2.3 million acres.

The estimated timber yield from SIP is 585.6 million board feet per $1.0 million of SIP funding for Reforestation/Afforestation and Forest Improvement Practices, if all of the appropriated funding is used for these two practices.

Research studies have indicated that 77 percent of the total timber yield will be obtained during the first 50 years following practice treatment. The remaining 23 percent will be obtained over the rest of the rotation which may extend to 125 years. Hence, the $20.0 million SIP funding in 1997 could yield 11.7 billion board feet of timber by 2047.

SIP investments are extremely cost-effective for the following reasons:

- Federal investments are limited to a fraction of the total expense to underwrite on-the-ground practices and are matched by private landowner investments.
- Site preparation and planting costs are low because of the favorable terrain and economies of scale obtained during treatment.
- Rotations are short in much of the area treated under Federal cost-shares. This means growth and volume are realized sooner.

Given the timber yield of 585.6 million board feet per $1.0 million of SIP funding, the projected timber production resulting from SIP funding in FY 1994 through FY 1997 President's Budget:

STEWARDSHIP INCENTIVES PROGRAM

FISCAL YEAR AND FUNDING LEVEL	ESTIMATE TIMBER PRODUCTION 50 YEARS IN FUTURE (millions of board feet)
FY 1994 ($17.9 million)	10,482
FY 1995 ($18.3 million)	10,716
FY 1996 ($4.5 million)	2,635
FY 1997 Estimate ($20.0 million)	11,712

Mr. REGULA. Mr. Skeen.

Mr. SKEEN. Thank you, Mr. Chairman.

Gentlemen, welcome. It's always good to see you. Did you make muster?

Mr. THOMAS. Yes, sir, I did.

Mr. SKEEN. I didn't get the opportunity. This is a little side deal we've got going here amongst us Aggies. I just want you to know that you're surrounded.

MEXICAN SPOTTED OWL

Let me ask you a question that's a little more parochial and directly associated with the operation in our part of the country, and it has to do with the Endangered Species Act and the Mexican spotted owl. The Forest Service says it doesn't want it listed and the Fish and Wildlife folks want it listed. And the Mexican spotted owl, if it is listed, would effectively, and has in the past, would effectively shut down all the timbering that goes on in New Mexico. What's the current status and why the difference in designation from the two agencies?

Mr. LYONS. Mr. Skeen, let me just say one thing. Gray can give you the details. I want to point out something that's important. You and I talked about the Agriculture budget and what we try to do there to prevent problems when working with the Natural Resources and Conservation Service. We've tried—the Forest Service—to work with the Fish and Wildlife Service to prevent problems more and more and to prevent listings. We think the strategy we put into place with the Mexican spotted owl is an example of that, but we've adjusted management practices that, hopefully, will prevent triggering that kind of listing. I think Gray can spell out the details of what we've attempted to do.

Mr. SKEEN. So you're trying to iron out these different approaches on the listing.

Mr. LYONS. Right. I mean the best outcome is not to have a listing.

Mr. THOMAS. I think the confusion may be that the Forest Service doesn't list; that's the responsibility under ESA of the Fish and Wildlife Service. We had the Mexican spotted owl, I believe, on our sensitive species list, which is what we would respond to if there were a danger of listing. It's not our job to list. We were proceeding with the sensitive species operation. When a species becomes listed then we prepare a recovery plan and a consultation on our actions.

Mr. SKEEN. You have input into it, but you do not make the listings?

Mr. THOMAS. We have input. They ask for our data which we, of course, provide. They ask for our opinions, but basically they have the responsibility.

Mr. SKEEN. Well, how much weight do they give your recommendations on the listings from the Forest Service? Maybe we ought to work on the attitude that since you're operating in a similar area that you have some, and I suppose maybe you do, have weighted input.

Mr. THOMAS. I think they give us full consideration of what we've got to say, but, on the other hand, usually a species that would be listed as more far-ranging than Forest Service lands would include other lands over which we don't——

Mr. SKEEN. Private and State?

Mr. THOMAS. Private, State, Bureau of Land Management, Park Service. So they have to take a broader view, and I think they take what we have to say quite seriously. On the other hand, they are the ones that are charged with that responsibility to list or not to list; we're all charged with the responsibility of conservation of our natural resources.

Mr. LYONS. I would emphasize again, Mr. Skeen, that what we're trying to do is avoid listings.

Mr. SKEEN. And I appreciate that. And the Forest Service has had more effect on the reticence of doing these wildcat listings that have taken place in the past.

Mr. LYONS. We appreciate that. We've tried to work more closely with the Fish and Wildlife Service and the National Marine Fisheries Service, who has responsibility for dealing with salmon and other anadromous fish early in the process. So that rather than the way we used to do business—which was to prepare projects and then basically hand a project over to the other agencies for determination, under the consultation provisions that Jack described, as to whether or not it would cause jeopardy, which is their responsibility—we sit down with them earlier in the project cycle and try to figure out ways to lay out timber sales, to lay out roads and recreation projects, et cetera, so as to avoid a threat to a species early on. And we've had considerable success with that.

When I was staff up here on the Agriculture Committee, I know a significant problem we had was a backlog of consultations. The Fish and Wildlife Service and the National Marine Fisheries Service often moved two years behind in completing consultations, which meant we couldn't get timber sales moving or projects done. And I'm proud to say, based in large part because of Jack's efforts to bring his colleagues together to discuss and improve the process, we have no backlog now in consultations.

Mr. SKEEN. Well, this is progress.

Mr. LYONS. It's a matter of teamwork, in trying to work together to agree that our goal is to prevent listings and to promote good conservation. And it works.

Mr. SKEEN. You know how to tell a regular spotted owl from a Mexican spotted owl? One says "who" and the other says "quien." [Laughter.]

GRAZING SITUATION

Let's go to the grazing situation. It's my understanding that the Forest Service has decided to issue term grazing permits that are accompanied by documentation that gives an analysis on the environmental effects on the grazing before issuing the permit. Is this the case?

Mr. REYNOLDS. Yes, section 504 of the rescission bill gave us directions. We've gone back and looked at all 6,800 of our grazing permits.

Mr. SKEEN. That's your total number?

Mr. REYNOLDS. That's correct. We have a schedule to complete those reissuances between 1996 and 1998. Expected grazing program costs this year are about $31 million. And concerning that, I want to explain something. Two years ago we worked with Congress to simplify the budget process and set up the ecosystem management expanded budget line item (EBLI). We identified the kinds of work that were going to be done under that EBLI, and we moved a sizeable amount of money out of the range management program. Then our definitions—and interpretations of those definitions—created a problem at the field level of exactly what constituted project-level work. The determination was that range allotment analysis was project-level work. So we've come back with a reprogramming request because that interpretation left the field with only enough dollars to administer the permits themselves.

Mr. SKEEN. So you didn't have the funding then to really implement the plan?

Mr. REYNOLDS. It was an error in our own budget management as it related to definitions and how dollars could be moved. Our range program, normally, has run about $48 million a year. And that's the level that we think is necessary to complete the NEPA analysis under the rescission act and also administer these permits individually on the ground.

Mr. SKEEN. Well, aside from the part of acceptance, what has it done to the permit fees? How does it affect them?

Mr. REYNOLDS. I think the permittees, at this point in time, are very comfortable with the language in the rescission bill. We were faced with a very difficult issue of having so many come due on 10-year reissuance. We had about 2,500 last year, and this is spread out over——

Mr. SKEEN. It's about a third?

Mr. REYNOLDS. That's right. And it gives us a better opportunity to do a better job on the ground with the permittees.

Mr. SKEEN. The Forest Service and the BLM—of course, this is significant in our part of the country because we have a tremendous amount of BLM lands and also Forest Service lands. But they're almost diametrically different in the way they handle the grazing program. Are we doing anything to get closer?

Mr. REYNOLDS. We are working very closely, but we have joint allotments. There are legal differences as it relates to the activities that BLM operates under, and how we operate under our legislation. But where we can, we recognize that livestock operators are using a large area as they move their livestock throughout the season, and we're trying to coordinate as closely as we can, on the planning side, the analysis side, and on the administration side. And I think we are making some real headway. Oregon is one State where there's been tremendous progress made, as an example.

DIAMOND BAR SITUATION

Mr. SKEEN. Are you familiar with the Diamond Bar situation? I'm sure you are. Everybody else is. There's not a soul who hasn't heard about Diamond Bar in our part of the country, in which he had a 1,200-head permit or something and now they've cut him down to 300 head and it's an economic non-reality.

Mr. REYNOLDS. It is an extremely difficult situation and the bottom line on Diamond Bar is that the range on that allotment is unsuitable to support the 1,100 animals that have been permitted on that range.

Mr. SKEEN. Who set up the 1,100?

Mr. REYNOLDS. The 1,100 was set up with full agreement from the Forest Service when the permit was issued.

Mr. SKEEN. How long ago was that?

Mr. REYNOLDS. This particular permittee was reissued about seven or eight years ago, I believe.

Mr. SKEEN. Seven or eight years ago?

Mr. REYNOLDS. Yes. This permit changed hands and it's an old permit that would have died a long time ago, but it was a permit where the permittee went into bankruptcy and the current permittee came in with a request, working with the bank, to have the permit reissued in their name. They had the base property, the permit was issued, but range up there is not a suitable condition to handle that size of permit.

Mr. SKEEN. You know, we're in an extreme drought situation, I'm sure that was part of it.

Mr. THOMAS. Well, that was part of it. Another part is that this particular allotment is largely in a wilderness area, and there's been some discussion or some argument about how much mechanical manipulation of stock tanks and that sort of thing are allowed. And when the permittee went in some 12 years ago, there was some installation of tanks and some other things——

Mr. SKEEN. That were not permitted?

Mr. THOMAS. No, they were permitted. It just didn't give the punch, plus we've been in a drought, and basically that allotment is in serious default——

Mr. SKEEN. Oh, there's no question about that.

Mr. THOMAS. And we've just simply had to respond. There is one thing. There is one thing that I will be frank about. This permittee—we have some responsibilities here that I can't quite figure out how to handle—did what we suggested; we worked this all out and it didn't work quite right somehow. But the allotment's beat up. We have to adjust to it. There's not any way that we can't. But I have desperately tried to figure out how to help this permittee because I think we have responsibility here, ethical responsibility.

Mr. SKEEN. Well, I appreciate your sensitivity.

Mr. THOMAS. Well, sensitivity is great, but it's not helping this guy.

Mr. SKEEN. Bankers have a real resistance to sensitivity.

Mr. THOMAS. Well, the point is we want to work with the Laneys. I think this is an unusual circumstance and that we have a heavy responsibility on us to try to help this guy in some way. But we can't continue to beat that allotment up.

CONTROLLED BURNS AND UNDERBRUSH

Mr. SKEEN. I understand that and I have perfect reference to the fact of having grazed in those areas. Speaking of underbrush situations that you've taken care of by controlled burns, I think that they've called that off in New Mexico because there's 30-to-50-mile-an-hour winds and a drought condition; all we're getting is runaways. And we've got one going now that's 7,000 acres. And I might make a suggestion to you: if you put some sheep and goats back on there, they'll take care of that underbrush, either that or get the deer population up.

Mr. REYNOLDS. The sheep and goat business isn't too good, either.

Mr. SKEEN. Well, it isn't too bad if you've got a place to put them. [Laughter.]

Mr. REYNOLDS. There's a lot of sheep people around the country having a tough time.

Mr. SKEEN. They're not having it near as tough as those cowboys, though. Of course, we used to run the sheep for the money and the cattle for the prestige. [Laughter.]

Thank you all much. I appreciate the responses, and I have some questions that I'll submit.

Mr. REGULA. Mr. Dicks.

Mr. DICKS. Well, I want to welcome Under Secretary Lyons and the Chief, and I appreciate all the cooperation that we've had working on a very difficult problem out in the Pacific Northwest. I, frankly, thought you'd be up for a supplemental for additional law enforcement, but, apparently, that will come later.

PACIFIC NORTHWEST FOREST PLAN

Let me ask you this: can you give us—Mr. Secretary, maybe you ought to start on this—tell us how we're doing in terms of—I think we're doing a good job on doing the watershed analysis; we're going early throughout all the forests of the Northwest. We're doing well on watershed restoration; I'd like to do more of that. We're doing well on helping the communities deal with the consequences of the dramatic turndown in the harvest of Federal timber. But where I'm still concerned is the commitment that we made to try and get the timber sales, green sales, as I understand it now, up to 1 billion board feet on the owl forest in Washington, Oregon, northern California, both Forest Service and BLM.

Now can you tell us where we are and what we're doing on this, and when do you think we'll get to a billion board feet of green sales?

Mr. LYONS. Well, Congressman, I would say we're doing very well. We are fulfilling the commitments we made. As you know, back at the beginning of this decade, the pipeline was the only source of volume sales that had been prepared in the previous decade. We were virtually being shut down. As we completed the forest plan, we committed to ramp up the green sale offers from those national forests within the region of the forest plan on the west side of Oregon, Washington, and northern California to a little over a billion board feet sustainable harvest. We've met that commitment. In fact, in 1994 we offered 335 million board feet from the national forests in that region. In 1995, it was 493.

Mr. DICKS. How much of that was green sales?

Mr. LYONS. These are green sales.

Mr. DICKS. No, I understand—what I understand is——

Mr. LYONS. The problem, Congressman, is you're reading numbers from a source that I would have a few questions about. I'll give you the numbers that we have.

Mr. DICKS. Okay, give me the numbers. This is Forest Service and BLM?

Mr. LYONS. This is Forest Service. I can give you the BLM 1997 offer; I don't have the rest of the BLM numbers.

Forest Service—let me do this again—1994 was 335; 1995 was 493; 1996 was 611; 1997, our portion of the offer is 763. You throw the BLM in there and it gets you up to 800. And I can show you a chart, if you'd like, that shows how it breaks down for this Fiscal Year.

Mr. DICKS. Yes, I'd like to see that chart.

Mr. LYONS. If I could, let me introduce Brian Burke, who is my new Deputy who has been onboard just for a couple of months, working in the forestry area. And we've got a pie chart that will show you how the Fiscal Year 1996 offer breaks down.

Mr. DICKS. Do we have an easel? Do you want an easel?

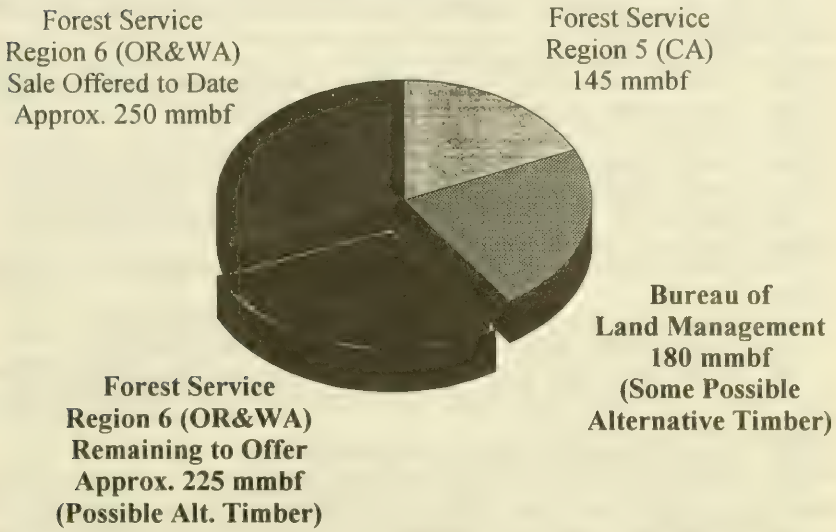
Mr. LYONS. No, we'll just do it this way somehow.

Mr. DICKS. All right. Jack, you've never looked better. [Laughter.]

Mr. LYONS. There you go. This shows the offer to date for the Pacific Northwest, Region 6. There's been 250 million offered already this Fiscal Year. The remaining offer is 225 million board feet. BLM's offer is 180 million board feet, and then Region 5's contribution is 145 million board feet.

[The information follows:]

Figure 2. - PNW Forest Plan
FY '96 Planned Timber Offer (800 mmbf)



Mr. DICKS. And this doesn't include salvage sales?

Mr. LYONS. No, this is, under the President's forest plan, volume to be offered.

Mr. DICKS. Okay. Can you tell us what the salvage numbers would be?

Mr. LYONS. I'm going to let Gray lay that out for you.

Mr. REYNOLDS. Just a minute here.

Mr. DICKS. It would be great if we could get one chart that did Forest Service, BLM——

Mr. REGULA. We can do that.

Mr. DICKS [continuing]. Washington, Oregon, and northern California, owl forests, and green sales and salvage sales.

Mr. REYNOLDS. We can do that for you.

Mr. DICKS. And then other sales—you guys have other kinds of things beside green sales and salvage sales. You do firewood.

Mr. REYNOLDS. I'm having trouble finding the breakdown between the two of them. Just a minute.

Mr. LYONS. We're just not always good at anticipating the questions.

Mr. DICKS. It's the same one I ask every year. [Laughter.]

Mr. LYONS. Well, then Gray wasn't good at anticipating it.

Mr. REYNOLDS. Yes, but it gets more complex because Region 6, you know, has east side and west side, and the President's plan has northern California.

Mr. DICKS. The west side, just the west side.

Mr. REYNOLDS. Yes, it's just the west side, and then we bring the salvage in, and we have difficulty keeping all these numbers——

Mr. DICKS. But you guys have got one good computer down there, I'm sure we've paid for. [Laughter.]

Mr. LYONS. Just one. [Laughter.]

Mr. REYNOLDS. Okay, let me just go through——

Mr. THOMAS. We've got the numbers; it's the pictures we don't have. [Laughter.]

Mr. REYNOLDS. Region 6, timber harvest, now let me give—this will be the salvage and the green in——

Mr. DICKS. Salvage plus green?

Mr. REYNOLDS. Yes. Let me give you—you wanted 1993, 1994, 1995, 1996, 1997?

Mr. DICKS. 1994 to 1997 would be fine.

Mr. REYNOLDS. Okay. Salvage in Region 6 in 1994 was 296 million; green was 140.

Mr. DICKS. Two ninety-six and 140?

Mr. REYNOLDS. Right. In 1995, it was 539 salvage and 238 green, for a total of 777. In 1996, it's 541 for salvage, 350 for green, and a total of 891.

Mr. DICKS. Five forty-one——

Mr. REYNOLDS. And 350. Three fifty green; 541 salvage.

Mr. YATES. Will you yield for a question?

Does that mean that the sales were doubled over last year, if I understand your figures correctly?

Mr. REYNOLDS. Yes, my figures are salvage this year at 450. So there's less salvage coming out, planned in 1997, but there's more green. Green is up to 550.

Mr. DICKS. Give me—1997 is what?

Mr. REYNOLDS. Is 550. Now this is not including the BLM. This is——

Mr. DICKS. And it doesn't include BLM; it doesn't include northern California, either?

Mr. REYNOLDS. No, it doesn't. Now I'm going to give you Region 5.

Mr. DICKS. I'm very worried about the integrity of Mr. Lyons because, I was going to say, these numbers don't square with what we just heard from him. But you saved him again. [Laughter.]

Mr. REYNOLDS. Yes. All right. Let me give you Region 5, and then we'll have to give you some——

Mr. DICKS. Let's do Region 5, and then I can add them up.

Mr. REYNOLDS. Okay. 1994——

Mr. DICKS. But give me 1997 again. Five fifty and——

Mr. REYNOLDS. 1997 is 450 salvage and 550 green.

Mr. DICKS. Okay.

Mr. REYNOLDS. Okay, in 1994, in Region 5 it's 262 salvage, 188 green.

Mr. DICKS. Okay.

Mr. REYNOLDS. In 1995, it's 345 salvage and 199 green.

Mr. DICKS. 1996.

Mr. REYNOLDS. 1996, it's 354 salvage and 250 green.

Mr. DICKS. Right.

Mr. REYNOLDS. And 1997 planned is 250 salvage and 215 green.

Mr. DICKS. Okay. The one thing we still don't have is the BLM. Have you got the BLM numbers?

Mr. REYNOLDS. The only BLM numbers I have are estimates.

Mr. DICKS. I'll take anything I can get.

Mr. REYNOLDS. BLM, in 1996, their estimate was 138, and that's total volume. I don't have the breakdown for you.

Mr. DICKS. That's okay.

Mr. REYNOLDS. And in the 1997 budget, it's 174.

Mr. DICKS. And this is in the President's region, and this is both Washington—this is Oregon and California?

Mr. REYNOLDS. That's right; this is the President's plan side.

Mr. DICKS. Okay.

Mr. THOMAS. Basically, it's Oregon. They don't have——

Mr. DICKS. They don't have any in Washington, but there's none in California, either?

Mr. THOMAS. Not much. Minimal.

Mr. REYNOLDS. Primarily Oregon, I think.

Mr. DICKS. All right, well, then—okay, we've got these numbers down. If you would, for the record, do a chart like you did for the first ones, but from the BLM end, so we can get real look at how we're doing on this because there are a lot of cynics out in the Northwest, and I'd like to prove that we're——

Mr. LYONS. None at this table, right?

Mr. DICKS [continuing]. Making some progress. And I'll be the first to, if it's happening, to be out there touting it.

The one area that I've been also concerned about, and I represent the Pacific North, the northwest corner of the State of Washington, and we have been looking at whether we can do some thinning sales, which, in my judgment, would be very, very good ecologically, but they also are in some of the areas outside of the matrix that are in reserves.

Now, for the record here, I mean, I'd like to just hear from you on this. Can that—is that possible to do at this juncture?

Mr. THOMAS. I'd like to go back and—though I wrote it, I'd like to go back and read it. But my recollection is that we can do thinning in stands up to age 70, and we even had an anticipation, I believe, in what type of other volume might come out of this thing.

TIMBER SALVAGE AND SECTION 318 SALES

Mr. DICKS. Right. One final question, Mr. Chairman: much has been made of the so-called timber rider, and the most controversial—as I get it from the experts, the salvage part of this is okay. The problem we're having is with the 318 sales. Now, as I understand it, the administration, for whatever reason, decided not to accept the Hatfield amendment in the conference, which would have given you the ability to have $40 million to purchase some of these sales, so that they could be replaced, and would have given you some flexibility.

First of all, I'm interested kind of to understand why that was—why the administration decided to do that, and what is the administration going to do now in order to do replacement sales, because, as I remember the original law, you can do them, but you have to have the approval of—it has to be similar kind, and you have to have the approval of the purchaser.

Now does the Executive Order of Mr. Glickman give us some new hope here or—I mean, how do we work our way out of this thing, because there's some of these sales that definitely should be substituted for, especially on the Siuslaw National Forest, where you have 180 million board feet, which is, I think, way too much in one forest?

Mr. LYONS. Well, the problem we face, Congressman, is there's quite a bit of volume that we would estimate might be in need of replacement, particularly if we lose the pending court suit over the definition of nesting, which affects murrelet habitat.

What we've attempted to do with a limited number of sales is to provide substitute volume to willing purchasers. And Alan Ford in Roseburg, from Roseburg Lumber, worked with us on a number of sales; other purchasers are doing the same.

The Secretary issued an interim rule that allowed us to offer sale units outside the existing sale unit boundary. To that point in time, we didn't have that latitude. So that helped substantially.

We're going to look to all possible places to provide substitute volume based on the willingness of the contract-holder to do so, but the problem is there's more volume to replace than we can provide. You have to take into account the fact that we estimate there's about 274 million board feet that we would have to replace. I have another chart, but, in the interest of time, I'll save that.

If we provide volume of equal value, since that's over volume, we've really got to provide, by our estimates, almost twice as much volume, because we're providing volume from second-growth stands and from other sources. Our preference would be, so as to maintain the integrity of the forest plan, to provide volume that is consistent with the standards and guidelines in the plan, so as not to tripwire any problems which could have ramifications for Federal timber supply as well as, you know, for private landowners who have developed HCPs—like Weyerhauser, Murray Pacific, and Plum Creek—whose HCPs, "Habitat Conservation Plans," are anchored by murrelet and owl protection on Federal lands. So we're trying to stick with the standards and guidelines, but it becomes an almost impossible task, if not an impossible task. We just don't have the manpower or the resources to maintain a 1996 sale program and provide the substitute volume that's going to keep us out of trouble. So——

Mr. DICKS. But wouldn't the Hatfield amendment have given you some extra tools to be able to do substitution and to buy out some of these sales where you might have a recalcitrant purchaser who doesn't want a sale?

Mr. LYONS. Well, first of all, $40 million probably isn't going to do the job. And, second of all, there was concern——

Mr. DICKS. Well, isn't it better than zero?

Mr. LYONS. Well, we're going to have to find the money from somewhere. I think that's the important point. The Hatfield amendment didn't create new money; it said take money out of the existing program. And it had a number of restrictions on where it would come from. So we would rob Peter to pay Paul.

I think the other problem that we run into is that the rider would have extended the sufficiency provisions for certain sales, and I think that is a significant concern for the administration because it extended the——

Mr. DICKS. It will expire. I got them to switch it to December of 1996. That will then end the program in December of 1996?

Mr. LYONS. We still can't get the job done, given the amount of volume we've got to substitute for.

Mr. DICKS. Thank you, Mr. Chairman.

Mr. REGULA. Yes. Mr. Nethercutt.

Mr. NETHERCUTT. Thank you, Mr. Chairman.

Welcome, gentlemen.

MOUNTAIN PINE BEETLE OUTBREAK

I want to talk with you about a concern of mine in our State that relates to forest health. The Loomis State Forest in Washington State the Posayten Wilderness Area in Okanogan County is having a tremendous problem with the mountain pine beetle. This infestation three years ago covered about 5,000 acres; now it's up to between 44,000 and 50,000 acres. It is spreading rapidly in lodgepole pine. The Loomis Forest borders the Okanogan National Forest.

This infestation seems to be out of control. In fact, I even happen to have some pictures here. I'll share them with you, if you'd like.

Are you working with the State? It appears that it's going unchecked in our State, and I'm wondering if you're working with Washington or if you intend to work with them. Where do you weigh in when you see a situation like this. Assuming that I'm correct in my figures and in the extent of the infestation, what role do you see for yourselves? To what extent will you get involved in it and can you?

Mr. THOMAS. Mountain pine beetle—as far as there is no effective chemical control—usually strikes mature lodge pole stands after stand age 80. Most lodgepole stands are relatively even-aged, and usually replaced like this. The pine beetle takes them, then it's usually a fire, and then we have the replacement. There is no chemical control.

This infestation has swept across eastern Oregon from one end to the other and stopped when it got to the Cascades and ran out of lodgepole pine. Basically, it's a salvage operation. In silviculture—for the people that are into this, and this is a little bit hard to sell publicly—once you have an infestation moving at epidemic proportions and start to see the beetle hits, you'll see the pitch tubes on the trees a year to two years before a stand starts to go in total. Salvage is the answer, or move ahead of the infestation with green sales. It's a little hard to sell to the public that we really know that this is going to happen; they don't believe it until they see the dead trees.

Mr. NETHERCUTT. Yes.

Mr. THOMAS. But this is an insect that we have a pretty good handle on. We understand it. It has happened before; it comes again. It sweeps like this. It's come—this has been about a 25-year process, basically beginning in the Idaho Basin, now into Washington. We faced it 10 years ago in eastern Oregon. Again, no chemical control, but basically it's an aggressive salvage program after the hit, or there is some silvicultural indication that heavy-duty thinning might prevent it, or at least diminish its hit, but one usually manages lodgepole pine in even-aged stands, which is the way they come naturally. I really think that the silvicultural approach is either harvest ahead of it or salvage behind it, and accept that that happens in mature lodgepole stands, and it will almost inevitably happen.

Mr. NETHERCUTT. I've got a little cabin up in Priest Lake, Idaho, and we had some beetle infestation there. The State owns the land and I own the cabin. We had to cut the trees down just to prevent spreading.

Mr. THOMAS. It's not uncommon to have pockets of lodgepole pine stands intermixed with Ponderosa pine, and this insect will attack Ponderosa pine. It's a secondary host, but it will attack it, particularly if you've got a sufficient buildup in the lodge pole.

Mr. NETHERCUTT. Getting back to my question, I was searching for an answer or have some assurance that you would work with the State of Washington and the Department of Natural Resources to try to address this problem. We need to do something to control it as best we can, with the methods of control you've outlined here.

Mr. THOMAS. Again, yes, the answer is yes. We have a lot of experience dealing with this in Oregon and elsewhere over the past couple of decades. There's one thing nice about lodgepoles. Twenty-five years ago, when I first went to eastern Oregon, we considered it a weed species, a trash species. It had no market value whatsoever. That's not true anymore. It has both sawlog value and chip value. And there's one thing about lodgepole: it does retain it's value considerably longer than some of the softer woods. And some of the stuff we lost in Oregon 10 years ago has still got chip value.

As long as we've got a chip market—and certainly it's worth something in terms of sawlog, too—it's not——

Mr. NETHERCUTT. Sure. Let me turn to a subject close to my heart. I'm sure you know what I'm going to talk about.

Mr. LYONS. Let me guess. [Laughter.]

INTERIOR COLUMBIA RIVER BASIN PROJECT

Mr. NETHERCUTT. It's the Interior Columbia Basin Ecosystem Management Project. The dynamics of that now, apparently, have been at play in this latest version of the 1996 appropriations bill. I'm just wondering if, either now or for the record, you could tell me how much has been spent to date on this project and how many personnel are working on it. You could do that now or for the record, either way is fine with me. I just want to have certification here.

Mr. THOMAS. Okay, I would prefer to answer for the record.

Mr. NETHERCUTT. That's fine.

Mr. THOMAS. And to make sure what you want to know, you want to know how much we've spent each year, how many personnel were involved——

Mr. NETHERCUTT. Correct.

Mr. THOMAS [continuing]. How many dollars we spent; is that correct?

Mr. NETHERCUTT. That's right. That's right.

Mr. THOMAS. We'll provide that for you.

Mr. NETHERCUTT. Okay.

[The information follows:]

INTERIOR COLUMBIA RIVER BASIN ECOSYSTEM MANAGEMENT PROJECT
FUNDING AND STAFFING

SUMMARY OF FUNDS SPENT ON THE COLUMBIA RIVER BASIN ECOSYSTEM MANAGEMENT PROJECT

	FY 1994	FY 1995	FY 1996 *
FOREST SERVICE		(Thousands of Dollars)	
Research	3,986	1,225	300
National Forest System	4,718	10,587	1,845
TOTAL, FOREST SERVICE	8,704	11,812	2,145
BUREAU OF LAND MANAGEMENT	657	3,806	382
GRAND TOTAL	9,361	15,618	2,527 *

* In FY 1996, $2,527,000 has been spent as of May 2, 1996.

SUMMARY OF STAFFING ON THE COLUMBIA RIVER BASIN ECOSYSTEM MANAGEMENT PROJECT

Estimated full-time personnel:

Fiscal Year 1994 - 65
Fiscal Year 1995 - 65
Fiscal Year 1996 - 43

Mr. NETHERCUTT. Through conversations with forest supervisors, my understanding is that they all have been asked to devote all their personnel funds and other dollars out of their own budgets for this study. Is that accurate?

Mr. THOMAS. No, sir, I think I heard you say, “all their funds.”

Mr. NETHERCUTT. I didn’t say, “all their funds.” I said, “funds”—all to provide those funds for this study out of their own budgets——

Mr. THOMAS. Yes.

Mr. NETHERCUTT [continuing]. And to devote personnel.

Mr. THOMAS. It was funded out of the Forest Service budget—research—National Forest System, and then BLM.

Mr. NETHERCUTT. Okay. I’m wondering—I’ve had Secretary Babbitt here before this subcommittee and you’ve been here. I just want to have an understanding for the record whether it is your intention or your agency’s intention—either, Mr. Secretary, or you, Mr. Thomas—to use the results of the project to impose any regulation or impact on private property?

Mr. THOMAS. No, sir.

Mr. LYONS. I would second that.

Mr. NETHERCUTT. You may not know this because I don’t know if you were involved in it, but the negotiations that have been ongoing over the last 24 hours in order to try to modify this section 314 language had a proposal, compromise proposal—and I want you to assume that I’m telling you the truth there, that would have in section 314 substitute language. This language had an affirmative declaration that, just what I said, no results of the study or personnel or funding would be applicable to private property. And for whatever reason, that language was rejected. That simple declaration was rejected by the White House or whoever was negotiating. Do you agree with that policy decision that I want you to assume was made and is accurate as I stated it, given your testimony here today?

Mr. THOMAS. What I want to clarify is: you asked me the question and I answered as Chief of the Forest Service.

Mr. NETHERCUTT. Right, I understand.

Mr. THOMAS. The Forest Service has no such intention—we don’t have any authority over private land. We don’t want any authority over private land. We think the review on private land gives us some clues about some of the things we might need to do on public land, so that information will be considered in our management. We have no authority outside our boundaries and don’t want any.

Mr. NETHERCUTT. Do you care to comment?

Mr. LYONS. I would just simply state, Congressman—of course, I haven’t been involved in the dialog in the last 24 hours, but I would echo the fact that our intent is to gather information to help guide the stewardship of public lands. I can’t speak to the nature of the discussions over this provision and why the outcome. But, obviously, I support whatever the White House came out with.

Mr. NETHERCUTT. Even if it’s at odds with your philosophy that this study shouldn’t have any impact on private lands?

Mr. LYONS. I wouldn’t infer that it is. Again, I haven’t been part of the dialog. So our discussion is out of context. There may be some other issues of concern there. I’d leave it at that.

Mr. NETHERCUTT. Senator Hatfield and I had provided in discussing and trying to resolve this whole issue between the Senate and the House, for $4 million to complete a draft EIS and get a range of alternatives. My understanding is there is now no money available for that purpose. In other words, the money side of section 314 in 1996, Fiscal Year 1996, was removed. How will you pay for that which is now going to be completed under your existing budget?

Mr. YATES. With difficulty.

Mr. REYNOLDS. Jack and I haven't seen anything on this budget agreement other than the newspaper——

Mr. NETHERCUTT. I hardly have until now. [Laughter.]

Mr. REYNOLDS. I don't want to get into it. [Laughter.]

Mr. NETHERCUTT. I understand. When do you think that the draft EIS will be released? Do you know that?

Mr. REYNOLDS. In June.

Mr. NETHERCUTT. And then the final EIS would follow public comment?

Mr. REYNOLDS. Yes, sir.

Mr. NETHERCUTT. When would that be, as far as you can tell right now?

Mr. REYNOLDS. Well, they were shooting to have something done in September or October. Nobody can predict how much public involvement they're going to get or what they may need to do based on that public involvement. But I know they were looking at the September period.

Mr. LYONS. I just want to clarify—it would help my understanding, Congressman. Mr. Satterfield tells me that the rider, as it stood, never really appropriated any additional dollars, that it was a limitation on funds that could be used. So this simply stripped the limitation, which will then provide us the flexibility to use what we need to complete the project.

Mr. NETHERCUTT. My question is, How much do you think you're going to need, the full amount?

Mr. LYONS. I think—Jack?

Mr. THOMAS. Our estimation is that we have scheduled everything to come in under the $4 million limitation, and—unless something happened unforeseen—I certainly don't have any extra money laying around. We would intend to operate under that limitation.

Mr. NETHERCUTT. When I was in my district a few weeks ago, I had a chance to talk with some of the people involved in the project. And I must tell you, regardless of the philosophical difference in how we've spent and what this is intended to be and how it's going to end up, you have some good people who are dedicated, trying their best, struggling under this budget constraint to get the job done.

My whole involvement in this project is certainly no reflection on the dedication of your people. I think they are dedicated, and I did have a good exchange with those who were at the meeting that I attended. And we can talk later maybe about the philosophical difference, about what this does and doesn't do, and whether it's good or bad. But the people on the ground at least those whom I had contact with are doing credit to the agency.

Mr. THOMAS. Thank you.

I wanted to clarify one thing. My answer was it would take us about $4 million under the limitation to get through the EIS. That was the limitation.

Mr. NETHERCUTT. Right.

Mr. THOMAS. When we go to record a decision, it depends on how much feedback we get on the EIS, et cetera, but we anticipated somewhere in total, through the final institution of the plan, about $5.7 million.

Mr. NETHERCUTT. Yes, I know.

All right, thanks, Mr. Chairman.

Mr. REGULA. Mr. Yates.

TONGASS NATIONAL FOREST

Mr. YATES. Let's turn to Tongass National Forest for a minute. Under the provision of the 1996 bill as we read it in the newspapers, not having seen the language itself, how are you going to administer the Tongass forest if the waiver isn't exercised? Can you administer a forest like that without knowing whether the President is going to exercise his waiver option to not enforce the provisions in the omnibus appropriations bill that relate to the Tongass?

Mr. LYONS. I would suggest, Mr. Yates, that our intent is to try to administer the forest in accordance with the forest plan, as it's been modified, reflecting current science, and that we would seek to——

Mr. YATES. What does that mean? As I understand, the language in the bill provides for managing the Tongass as called for in Alternative P, not for your existing forest plan. And until the waiver is exercised, as I understand it, don't you have to operate the forest under Alternative P?

Mr. LYONS. Well, I'm handicapped in that I haven't seen the language, and so it's hard for me to respond.

Mr. YATES. Of course you are. You and I are talking from what we've read in the papers.

Mr. LYONS. Yes.

Mr. YATES. And also what we've seen in the bill before. We know that there is Alternative P language in the omnibus bill, and that is not your forest plan, is it?

Mr. LYONS. No.

Mr. YATES. Okay. So that is there a difference between Alternative P and the current forest plan?

Mr. THOMAS. We're engaged in finishing out the second round of planning on the Tongass. We just turned loose our new draft plan last week, and I was trying—can you remember exactly what the board feet were in that?

Mr. REYNOLDS. Yes, the preferred alternative provided for 297 to 347. I think the difference between 297 and 347 was the uneconomical component, but that's considerably less. Alternative P, as I remember, provides for up to 418 million.

Mr. YATES. That's correct.

Mr. THOMAS. Mr. Yates, the——

Mr. YATES. You've never—Chief, for just a moment—you've never cut that much timber from the Tongass, have you?

Mr. REYNOLDS. Not to my knowledge.

Mr. YATES. And it will require a lot of doing to cut that much, won't it?

Mr. THOMAS. The point, Mr. Yates, is we can't cut any more than we're funded. I mean, you can give us a number. No matter what it is, if we don't have the personnel and the money to do it, we can't do it. And we would not be able to provide 465 million board feet. [Laughter.]

Mr. LYONS. If it would help, Congressman Yates, I could offer for the record a summary going back to 1988 of the timber we've offered from the Tongass National Forest. It ranges from 310 in 1996, part of which was affected by injunctions affecting the award of sales—to a high of 516 million board feet in Fiscal Year 1992. So that will give you at least an historical trend.

Mr. YATES. May that be accepted for the record, Mr. Chairman?

Mr. NETHERCUTT. Mr. Yates, would you yield?

That much was offered? How much was sold? Could that also be put in the record?

[The information follows:]

TONGASS NATIONAL FOREST
VOLUMES IN MILLION BOARD FEET (MMBF)

Fiscal Year	Offered	Sold	Harvested
1988	387	336	396
1989	369	290	445
1990	385	313	471
1991	397	405	363
1992	489	429	370
1993	318	348	325
1994	307	269	276
1995	327	230	221

Source: Alaska Region
Note: All figures include utility volume, which varies each year from 18-23%

Mr. THOMAS. I guess my point would be, for both of us, is we don't know what's going on.

Mr. YATES. I know that.

Mr. THOMAS. And it would be——

Mr. YATES. Nor do we.

Mr. THOMAS. It's very difficult—sometimes we know what's going on, but what's going on with that bill we don't have the slightest idea.

Mr. YATES. You know, we were conferees on the bill. [Laughter.] And as far as I know, we haven't seen the final results of the conference report.

KETCHIKAN PULP COMPANY CONTRACT

Tell us about the Ketchikan contract. Is that still in existence?

Mr. THOMAS. Yes, sir.

Mr. YATES. Under a 50-year basis?

Mr. THOMAS. A 50-year basis.

Mr. YATES. I had the impression that you had cancelled all 50-year contracts.

Mr. THOMAS. That was the Alaska Pulp Company. There were two 50-year timber sale contracts.

Mr. YATES. Yes.

Mr. THOMAS. One was Alaska Pulp Company and the other one was Ketchikan Pulp Company. The Alaska Pulp Company closed their mill in Sitka. We took our—we closed the contract.

Mr. YATES. Okay.

Mr. DICKS. But the other one is still alive?

Mr. THOMAS. Yes, sir.

Mr. DICKS. Excuse me.

Mr. YATES. Ketchikan?

Mr. THOMAS. Ketchikan goes until 2004.

Mr. YATES. Does your operation with Ketchikan continue if the President exercises a waiver of the Tongass provision? If he exercises a waiver, you don't have sufficient timber volume, presumably?

Mr. LYONS. Again, I can't really address that, Mr. Yates, because we don't know what the waiver is. I would say this in terms of our sale offerings up there: we believe we have sufficient volume to offer to meet our long-term contract obligations for KPC as well as a commitment we've made to offer 100 million board feet to independent operators up there, and we can meet that target as things stand now.

Mr. REYNOLDS. And we're operating under a plan right now, so that the change to Alternative P or—it seems to me like we'd still be under the existing plan, if the President——

Mr. YATES. Well, good luck. If the President exercises a waiver, you can do that. If he doesn't exercise it fairly quickly, I don't know what you're going to do, do you?

Mr. THOMAS. First, I've got to tell you, I don't know what a waiver means even.

Mr. YATES. Well, I don't, either, frankly. [Laughter.]

It's being interpreted really as a repealer, presumably, if the President exercises the waiver it repeals the provisions that are now in that bill, presumably, and I hope that this provision will be explained by somebody when we go into the discussion on the House floor. I don't remember any other legislation where it sought to have the impact that this waiver has on the provisions of the bill.

Mr. THOMAS. It was explained to me at some point in this that if you exercise this waiver whatever it is, you have to find $100 million somewhere to do something else—but that was at some point in discussion. I don't know what's going on now. I'd just as soon try not to answer it. [Laughter.]

Mr. DICKS. Maybe our chairman could enlighten us.

Mr. SKEEN. Which chairman?

Mr. DICKS. Chairman Regula. We're trying to find out where the $100 million comes from for Alaska if the waiver is exercised.

Mr. REGULA. The tooth fairy. [Laughter.]

Mr. YATES. No, seriously.

Mr. REGULA. I'm advised a travel fund rescission and an across-the-board cut in all accounts.

Mr. YATES. Travel fund rescission of all the agencies?

Mr. DICKS. Throughout all government?

Mr. REGULA. Norm, I don't know just how far it extends. I don't think it goes to your office account. [Laughter.]

Mr. DICKS. It wouldn't go far with my office. [Laughter.]

Mr. REGULA. It was a remarkable piece of fiscal imagination.

Mr. YATES. Ledger domain.

Mr. REGULA. But, of course, it depends on whether the President exercises his waiver.

Mr. YATES. Well, I personally feel that the term "waiver," without knowing what it is, is an invitation to litigation because, if that waiver is as important as I think it is to the timber companies, they're going to be in court on that, aren't they? Can you speculate with me on that?

Mr. LYONS. All I can tell you, Mr. Yates, is it seems like we're in court every day on the Tongass, at least with Ketchikan Pulp Company. So nothing would surprise me in terms of litigation up there.

KETCHIKAN COURT DECISION

Mr. YATES. Oh, another thing I wanted to ask you, regarding the AWRTA decision. The Ketchikan contract, I have the impression, has been placed in jeopardy by the 9th circuit court of appeals on the grounds that you did not comply with the Alaska National Interest Lands Conservation Act and the National Environmental Policy Act, but that your compliance, as I remember the decision, was with the terms of the contract. And the environmental terms of the contract did not comply with ANILCA or NEPA. Is my understanding correct? Have you seen the decision?

Mr. LYONS. I'm not familiar with that decision.

Mr. YATES. Have you got a lawyer here?

Mr. LYONS. No, we didn't bring a lawyer to deal with that one.

Mr. YATES. I have read that decision, and that's what the court said.

Mr. LYONS. We are in court now with a proposed settlement, at least on the volume that would be released as a part of the injunction with that portion of the legal challenge.

Mr. YATES. But isn't the court making you rework your settlement?

Mr. LYONS. I don't know that they've rejected the settlement yet. We've had hearings the last two days.

Mr. YATES. Everything is in a state of confusion, isn't it?

Mr. LYONS. Alaska is always an exciting place to do forestry work, Mr. Chairman.

Mr. YATES. Well, why is that?

Mr. LYONS. It——

Mr. YATES. Because you're running from one court to another?

Mr. LYONS. Well, it's, obviously, an area of significant interest to the region, significant national interest.

Mr. YATES. Well, Tongass——

Mr. LYONS. It is a unique resource and——

Mr. YATES. Tongass is a unique resource, isn't it?

Mr. LYONS. Yes, sir. Yes.

Mr. YATES. And it shouldn't be cut too much, should it? [Laughter.]

Mr. LYONS. I think we do have obligations that we have to address up there, and we're committed to meeting those.

Mr. DICKS. Could you speak up a little——

Mr. LYONS. I said, Congressman, that we are committed to meeting our obligations to meet the needs of the communities in the region as well as the contract obligations that we have in place with KPC and the commitments we've made to small, independent operators. You know, we have legislative direction that was part of the TTRA, Tongass Timber Reform Act, that directs us—in fact, I happen to have it right here—"to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which, one, meets the annual market demand for timber from such forest and, two, meets the market demand from such forest for each planning cycle."

We believe the proposed alternative that Jack referenced would meet those legal obligations. We believe we're meeting them now.

Mr. YATES. Would you repeat that, please? The proposed what?

Mr. LYONS. The proposed alternative under the new forest plan that we've just developed and laid out.

Mr. YATES. When will that be placed in effect?

Mr. LYONS. Well, it's out for public comment now. So we have to go through the comment process.

Mr. YATES. Do you have to have an EIS, by any chance?

Mr. LYONS. On that, yes.

Mr. YATES. You do? So it will take a year at least?

Mr. LYONS. Well, at the end this is what's out, the EIS.

Mr. YATES. The EIS?

Mr. LYONS. Yes.

Mr. YATES. Thank you, Mr. Chairman.

SOUTHEAST ALASKA DISASTER ASSISTANCE FUND

Mr. REGULA. I'm advised, Norm, in response to your questions, and Mr. Yates, that the $110 million will be accomplished by putting the entire government travel budget in a pool, and $50 million will come out this year, and the balance over a period of three years.

Mr. YATES. Now what's the purpose of that?

Mr. REGULA. $110 million will be an offset in case they can't cut timber in the Tongass. If the President exercises his waiver to preclude cutting, then the money will be used to replace the economic development that would take place if there were cutting.

Mr. YATES. Does that mean that if the President exercises his waiver, there won't be any cut in Tongass?

Mr. REGULA. I don't think it goes that far.

Mr. DICKS. If he exercises his waiver, they would have to go back to the plan that they have just developed and harvest at that level.

Mr. REGULA. Yes, right.

Mr. YATES. Yes, but that plan is not in existence yet, is it?

Mr. REYNOLDS. I hate to get into this discussion without at least having had a chance to look at the legislation—[laughter]—but it seems to me the waiver——

Mr. REGULA. Well, the language was changed as of noon today, and I haven't seen the new language.

Mr. DICKS. What plan are you operating under now?

Mr. REYNOLDS. The old plan. That's the one we're trying to——

Mr. DICKS. And how much does that one allow?

Mr. REYNOLDS. And that's up to 450.

Mr. DICKS. But you're not getting there; you're down at a lower number?

Mr. REYNOLDS. Yes, we're not funded—it's our funding that's our limitation.

Mr. REGULA. Which is 310.

Mr. YATES. Well, now wait a minute. Would you yield, Mr. Chairman?

Mr. REGULA. Yes.

Mr. YATES. The omnibus bill provides $110 million for Alaska if the President waives the Tongass Provisions. Where would that $110 million go?

Mr. REYNOLDS. The current plan——

Mr. DICKS. It's economic assistance; it has nothing to do with the forestry. This goes to the community like the Northwest Timber Plan does; it's going to help the communities——

Mr. YATES. So does that mean that you're going to cut 320 mbf on the Tongass in FY 96?

Mr. REYNOLDS. No, we would cut at the level we're funded at this year——

Mr. YATES. Which is what?

Mr. REYNOLDS [continuing]. And our funding for Alaska is about 320.

Mr. YATES. Three twenty. All right, so that's your limit?

Mr. REYNOLDS. Yes.

Mr. YATES. You can't go any more than that?

Mr. DICKS. And you might not even get there?

Mr. REYNOLDS. That's green and utility. That's both.

Mr. YATES. Thank you.

Mr. REGULA. And I think, also, Mr. Yates, if the President exercises the waiver it eliminates that sufficiency language on that sale.

Mr. YATES. Well, that's what Mr. Thomas and I were commenting; we don't know what the term "waiver" means. To me, it means repealer. And I don't know why they don't use a word that has sufficiency about it. [Laughter.]

Mr. REGULA. I have one more question, and then I'll go back to any members that want to ask any questions, and we'll put the rest in the record.

RECREATION FEES

The FY 1996 bill included the recreation fee demo program. I assume this is going to make it down and get signed. Are you ready to implement the demonstration program provided in the Fiscal Year 1996 bill?

Mr. LYONS. Yes, sir, we are.

Mr. REGULA. And what do you see as the impacts of this, on your programs?

Mr. LYONS. Well, I can't speak to the specific revenues we expect—maybe Gray can—but we think it's a significantly important tool to help provide money back into those areas where we collect fees from to supplement what obviously is a growing need in funding for our recreation programs.

Mr. REGULA. Well, you mentioned the rapid growth of your recreation program as opposed to timber, and I assume this would be one way to deal with that problem, and this will allow the fees to flow back to the source, I assume. It will then generate interest on the part of the manager of any given forest to do a good job of collecting.

Mr. REYNOLDS. We can keep the facilities, if they're in good condition, at a good condition, and those that we've got to restore, we've got a base to begin to restore——

Mr. REGULA. You'll have money, then—this money could be used for repairs and restoration.

Mr. REYNOLDS. Right.

Mr. REGULA. Could it be used for some of the backlog that you have in buildings?

Mr. REYNOLDS. We strongly support this. We appreciate the support. The pilot project is for 50 units. We're ready to go forward. We wanted to be ready to go right now; it will be a little later, but we're going forward aggressively.

Mr. LYONS. It's very helpful, Mr. Chairman. We do appreciate it.

Mr. REGULA. Thank you.

Any other questions?

Mr. DICKS. Mr. Chairman?

Mr. REGULA. Yes?

COLUMBIA RIVER BASIN

Mr. DICKS. Tell me about the Columbia River Basin study. Where are we on this? Can you just give me the history of this and what you're trying to do?

Mr. THOMAS. Well, we've learned some lessons in the Pacific Northwest where we let these things sneak up on us piecemeal. I don't think I need to describe to you what happened in the Pacific Northwest.

Mr. DICKS. Right.

Mr. THOMAS. It was very clear when we got salmon listings—and almost inevitability of bull trout listings—within the Columbia Basin that we were on our way to repetition. It is very clear and slammed home by what was called the Pacific Rivers decision. We maintained that we did not need to consult on forest plans, but only when we actually instituted a ground-moving action. We lost that in court. And it was very obvious at that time that we would have to deal with these things at a very large scale to deal with cumulative effects.

As a number of these plans were coming up for reinstitution anyway, it was apparent to us that the most effective, efficient way to obey the law, to get the job done—and to preclude suits, and to avoid a one-size-fits-all operation—was go to a full-scale technical assessment which would provide the backup information needed to go into plan revisions.

Mr. DICKS. Now is this on all east side forests?

Mr. THOMAS. Yes, sir.

Mr. DICKS. Is it just Washington or is it Idaho as well?

Mr. THOMAS. It includes Idaho and part of Montana.

Mr. NETHERCUTT. It's seven States.

Mr. THOMAS. And now there's two attributes to it. One is the science team that's putting together the technical information, and the other is the EIS teams that are putting together the approaches that would then go out for individual applications to the forests. Science gives them the backup.

And, very obviously, then, you begin to be able to quickly understand that there is a big difference between the forests in northern Idaho and a BLM district south of Boise. Then you have the ability, looking at those things, to begin to move to site-specific adjustment and be able to achieve overall objectives with site-specific application.

Mr. DICKS. So are you doing watershed analysis? Are you doing Pac-fish, where you've got to rely on buffers?

Mr. THOMAS. Pac-fish and In-fish, a one-size-fits-all drill, are in place as a temporary measure to get us past the shutdown that we were locked into with Pacific Rivers. We want to move past that to more site-specific institution of standards and guides, which would come to individual plans of forests and BLM districts.

We've essentially finished the science operations. I forget how many separate pieces of that there are, but some of them are being published; some are finishing up peer review. We are essentially—Gray's got the exact detail there.

COLUMBIA RIVER BASIN STUDY DOCUMENTS

Mr. REYNOLDS. Yes, let me just tell you. The five documents that will come out this year are the scientific framework for ecosystem management for that whole——

Mr. DICKS. These hardwood forests in these seven States?

Mr. REYNOLDS. Yes, including BLM. There will be a scientific assessment for the ecosystem management portion.

Mr. DICKS. Right.

Mr. REYNOLDS. There will be an east-side EIS that updates the eastern Oregon/Washington BLM/Forest Service activities for that side of the Columbia Basin. And then there will be an EIS for what we call the Upper Columbia River Basin, which is Idaho and Montana. And then there will be a scientific evaluation of the EIS alternatives.

Mr. DICKS. Right.

Mr. REYNOLDS. And those documents then give us some information. The pictures that we were looking at a little bit ago show that those things happen across ecosystems. We try to figure out how to deal with those things before we get into crisis situations, because fires and disease, and so forth, follow these droughts.

Mr. DICKS. So, in essence, I mean, on the west side we've got option 9, the President's plan.

Mr. REYNOLDS. Right.

Mr. DICKS. And is the effort here to come up with a plan, an administration plan, for these forests over these seven States, which is, in essence, equivalent to what we're doing on the west side, except what's driven on the west side is done under the ESA; this is done not under the ESA requirements?

Mr. LYONS. No, what was driven on the west side was driven by NFMA and its viability trigger.

Mr. DICKS. That's exactly right, the viability. You're right.

Mr. LYONS. What we're trying to do on the east side is prevent being put in the position where we're driven by viability or ESI requirements. We're trying to—just as you've promoted with regard to salmon work and restoration in the Northwest—look at entire watersheds.

Mr. DICKS. Right.

COLUMBIA RIVER BASIN WATERSHED

Mr. LYONS. We're looking at the entire Columbia River Basin watershed. And by understanding the status of those resources and their health, that will help guide us not only in protecting aquatic resources, but promoting, I think, better salvage sales, forest health in general, and better management of the entire estate. We want to avoid situations where we've got to lay a framework on the ground as a preventative measure, so as to get past an ESA problem or something, and that's what Pac-fish and In-fish are.

What we're trying to do is get to the point where we can develop, from the ground up, plans that benefit from this larger database, so we understand how all the pieces fit together and so we can then come up with plans that make sense, not only from the standpoint of protecting the ecosystem, but make sense on the ground that reflect that kind of input.

And we couldn't do that on the west side because of the time-crunch; in fact, we had our back up against the wall. On the east side, we can maybe buy some time and do a better job of land stewardship.

Mr. DICKS. So you see this as, in essence, preventing listings because you've got a comprehensive plan for your east-side forests?

Mr. LYONS. That's the whole idea.

Mr. REYNOLDS. And everybody's working with the same database.

Mr. THOMAS. We've already got some listings. The other part of it is to be able to respond to those listings in a coordinated, intelligent fashion, where you can say, "Okay, this is what's here; that's what's there. What do you need to do here; what do you need to do there?"

For Mr. Nethercutt's information, the science teams are now disbanding, and we're outplacing people very rapidly. We weren't counting on being in the downsizing operation when we started, but we will outplace all of those people. We're working very hard on that. We've got most of that done. So we'll be down to the core ESA team fairly quickly.

Mr. DICKS. Let me ask you, based on what you've seen so far, what do you expect the outcome here to be?

Mr. THOMAS. I would expect the outcome to be a series of plans, all the plans being readjusted, and we probably need to discuss that with the committee further. There's two approaches to it. One is simultaneous modification, which is relatively quick and relatively cheap. It comes at a cost, at least in theory, of really intensive engagement of the public and local areas as these things come up. That was the concern, that they would be modified one at a time, which would be slower and more expensive. However, whichever way that goes, we fully understand the point that we need full local involvement on every single one of those BLM and Forest Service plans, and we did not miss that message.

Mr. REGULA. Mr. Nethercutt, do you have any further questions?

SECTION 314 INTENT

Mr. NETHERCUTT. Well, I'll take equal time here.

That was the intent of section 314. It would have done precisely what you're saying here today, but not be bound by any preferred alternative. In other words, Norm says, "What's it going to look like?" Well, that's precisely what we would have had, had 314 been implemented, in my judgment. We may disagree, but my judgment was to let us look at a wide range of alternatives, not be bound, not all those 144 million acres that are affected by the study, be bound by a preferred alternative, which in my judgment might lead someone to go to court and say, ah, ecosystem study says alternative whatever or preferred alternative; therefore, the court's bound by it.

I really think it makes better policy to have a wide range of alternatives and not bind anybody to one alternative. Let the public have broad input and then go forward from there, using all scientific evidence and information that was compiled over these last couple of years.

So maybe we're headed for the same goal. I'm fearful about, given the legal system and given the emotion involved in this issue of ecosystem management, that we may be getting the kind of alternative or result that maybe you don't want and certainly I as a representative of my State very concerned about being stuck with a government determination would be faced with.

Mr. THOMAS. Let me make one point. Basically, there are two ways. One, the common, ordinary way deals with an EIS, by direction and by everything else, comes up with a preferred alternative. That doesn't mean that's the alternative you get. Sometimes you get a totally new alternative developed; sometimes that one is rejected. But experience has indicated that if you throw out a whole array of alternatives, you get a total cacophony of sound that you're unable to respond to. Where you put out a preferred alternative, then you can get a more focused result. In many cases you get a modified preferred alternative, or you get a totally different one. You get another one or you modify and build one you've not even had before based on public comment.

I will assure you of at least one thing. We absolutely understand the concern about full public input at the local level where the plans will be instituted. We're still arguing about and trying to determine the best way to go about that, but we hear you clearly and I certainly understand that concern.

COURT CHALLENGES

One other thing on that particular issue is that we probably will face the court. On the other hand, we are going to face the court, no matter what. But let me give you one line out of Judge Dwyer's decision. When the question was raised, challenged, "Is it legal to do ecosystem management?"—and, of course, this is one judge—he said, and I thought correctly, "Is it legal? It's mandatory if you are going to make any rational attempt to obey the crazy-quilt of law simultaneously."

Mr. DICKS. Would the gentleman yield on this one point?

Mr. NETHERCUTT. Did you want to say something?

Mr. DICKS. Yes, if I could just——

Mr. LYONS. Excuse me, Congressman. I think there are three points I want to quickly make, just to help frame this as well.

Don't misunderstand—forest plans are dynamic as well. They are not static documents. So once we've come to understand what the larger framework is—what the cumulative effects of different activities might be, and the status of the health of the resource is, to guide us in developing individual forest plans—those will change over time as local conditions change. Right now we're in a box. We are vulnerable probably to legal challenge in a number of places because of inadequate data. We've seen lawsuits mushroom and spread like wildfire when people find a vulnerability. And we're trying to address that in a broader context.

In fact, that's why we had to put the east-side screenings in effect: because we knew we were legally vulnerable. The decision we had to make was, would we take a slight hit in timber production in the short run or run the risk of losing the whole program?

But, as far as the courts go, I think there's value in seeing what has happened with the Northwest Forest Plan. Just a week or so ago, the appeal to the circuit court was denied, and, in fact, the Forest Plan was upheld as a way to do business.

We've won every challenge we've faced—we discussed this yesterday in the Senate—on individual timber sales under the Northwest Forest Plan. And I think that's one way to deal with this legal challenge: provide a scientifically sound document that strengthens your armor, if you will, against legal challenge. And I think they will be sustained.

Mr. NETHERCUTT. Let me just——

Mr. REGULA. Excuse me a minute.

Mr. NETHERCUTT. Yes.

Mr. REGULA. I'm going to have to go to the floor, and I'll let you finish up the hearing, Mr. Nethercutt.

I just want to say we appreciate your coming. We'll have a lot of questions probably submitted for the record, and we'd appreciate prompt replies. And once we know what our allocation is under the 602(b), we'll be back in touch with you to at least give you an opportunity to re-establish your priorities, in the event that there's less funding than we anticipated.

Mr. LYONS. Thank you.

Mr. REGULA. Mr. Nethercutt, you can finish.

Mr. NETHERCUTT [presiding]. Yes, thank you.

Mr. DICKS. If the gentleman would yield——

Mr. NETHERCUTT. Sure.

EAST SIDE, WEST SIDE DEBATE

Mr. DICKS. Again, I would just point out what we experienced on the west side, and that is, we didn't do the EIS; we didn't have a comprehensive regional approach, and we got enjoined two separate times and took a couple of years at zero harvesting, where we completely stopped everything. So you've got to take that history into account here, it seems to me.

And everybody can argue, as I argued—I didn't like the outcome one bit. I thought an 85 to 90 percent reduction in timber harvesting in the Northwest was too severe, and I still am disappointed in that. But I do want my billion board feet on the west side, and this is the only way you're going to get it, because if you don't do this, then you're going to wind up getting enjoined on the east side, just as we did on the west side.

At least you're not under a court mandate here, where you've got to satisfy a court that you've done this thing right. At least here you get a chance to have some input from your local communities about the levels and the way this thing is going to be done. And it just seems like a case of, you know, it's either pay me now or pay me later. And there's some kind of preventative medicine here.

Mr. THOMAS. Mr. Chairman, Mr. Dicks—we've talked about this a lot of times. Also, there is a grave danger in delay. I think Mr. Dicks would tell you that there was a plan on the table that would have probably been legally sufficient——

Mr. DICKS. Right.

Mr. THOMAS [continuing]. And we could not bring ourselves to grip it, and we waited three years and——

Mr. DICKS. And I urged that this be adopted. It would have been 2.6 billion board feet on the west side, and we're down to 1. And so the longer you take in facing reality, the more severe the restrictions get.

Mr. NETHERCUTT. I understand that. However, with all due respect to your agency and your Department, there's great fear and concern and negative attitudes, I think, in the timber communities and in the small communities that are affected by what you do. And so to the extent that there is a logical step-by-step activity in development of a final outcome, the better off I think you are to persuade the public that you're not what they may think you are, assuming that you're not. [Laughter.]

PUBLIC INPUT TO PLANNING

Mr. DICKS. Believe me, what they did under the President's forest plan was imposed. At least you've got a chance, because they're not under legal mandate, to at least have some input into what's decided.

Mr. NETHERCUTT. I agree with you, but I'm saying we still would have the input, had 314 been implemented. It simply would have been a little more controlled. And we've got mill closures up north, and our people are very unhappy. I mean, we talk about timber offers. As I asked you, what have we had with timber sales, just for the record, in not only the Tongass, but in Region 6 and Region 5? Maybe for the record put that in.

[The information follows:]

TIMBER VOLUMES - REGIONS 5 AND 6
OFFERED AND SOLD
(Millions of Board Feet)

Fiscal Year	OFFERED R5	OFFERED R6	SOLD R5	SOLD R6
1988	1869.5	5056.1	1953.3	4918.9
1989	1713.2	4413.2	1498.9	2811.3
1990	1644.2	5047.9	1501.1	3997.1
1991	1022.9	1093.9	881.2	2105.8
1992	784.0	683.9	574.0	740.5
1993	768.8	629.6	739.2	786.9
1994	450.0	435.8	444.3	433.9
1995	544.4	766.8	379.0	401.0
1996	604 *	[illegible]91 *	Not Available	

* - Planned for FY 1996.

Source for FY 1988-95: Annual Reports of the Forest Service (FY 1995 still in draft).

Mr. NETHERCUTT. There's great distress. I'm not telling you anything new, but, boy, the more confidence that the public can have in what you're doing, when you're doing it, and why you're doing it, which was the intent of 314, to lay it out carefully and understand it, and still have that public input, the better off you are. It serves the public policy.

Mr. LYONS. Mr. Congressman, I would say that we both share the same goal.

Mr. NETHERCUTT. Sure.

CERTAINTY OF SUPPLY

Mr. LYONS. And that is certainty. That's what killed us on the west side; there was not certainty in terms of how our actions would affect different resources, timber and non-timber resources, how they would affect different communities, and whether or not mill owners could have some sense of certainty in terms of timber supply.

One of the benefits of trying to take this regionwide approach is to provide and build in better certainty. But you're absolutely right, we need to seek, and we will seek, local input in refining plans, in developing management actions. And, of course a part of this assessment involved looking at the social and economic consequences of change in the region. And it's a region—as you know, since you've been there all your life—that has gone through dramatic changes, and the rate of change has accelerated. We need to anticipate that. We need to look at how the shift in the products we provide and produce is driven by changes in the nature of the communities.

NON-TIMBER RESOURCE DEMANDS

In Spokane, for example, the recreational demand on the Colville National Forest is tremendous now. We didn't see that 10 years ago. And due to the recreational demand on the Columbia River Basin, interest in non-timber resources is affecting us greatly, too. We've got to balance those demands, so we can provide the commodities that are critical to those communities that need them and help communities diversify at the same time. So they are more stable and better able to deal with the changes in prices and demand and resources as time goes on.

Mr. THOMAS. I would make one comment.

Mr. NETHERCUTT. Yes.

PLANNING PROCESS OPEN

Mr. THOMAS. I believe, as far as—I don't think anybody's ever quite done anything like this before. But to address those concerns which you have—and we have, too—this process has been absolutely open. Anybody can come in and watch that wants to. They have weekly updates on Internet and everything else about what's going on. They take the show on the road once a month to go to the public. We've never made such an effort to let people know what we're doing. And I will assure you that we will do that when we get ready to go out.

One point here: we kind of like what we do. Do you know what we do? We obey the law. [Laughter.]

Mr. NETHERCUTT. Secretary Babbitt was here yesterday, talking about recreation and balancing use. Lake Roosevelt is drawing down for flood control and other reasons, and fish preservation. Recreation's severely affected—to accomplish one objective, and resident fish are severely affected, in our efforts to save another fish. Boy, it's troublesome, but I guess those who are in the districts like mine have similar concerns.

And there's a national fear of government. There's fear of, and skepticism about Members of Congress. You're not alone. But my intent is to try—and I assume yours is—to try to restore some of that confidence that everybody that works in this city is not all bad.

PRIVATE PROPERTY ASSURANCE

But, yet—and I'll just say it advisedly—in these negotiations with the White House about this assurance regarding private property, which are very important words for people out West—there seems to be this unwillingness to agree with the conclusions you're coming to. I urge you to check on it because it was distressing to me in the negotiation process to say, "Well, wait a minute, you're not willing to confirm that these results are not going to have any use and impact on private property?" and they said, "Absolutely not. Forget it. We're not going to do that."

So, anyway, I'd just say it advisedly. In an effort to enhance or reduce the skepticism and enhance the confidence in what you're doing, this kind of action in this negotiation process doesn't help at all. In fact, it raises more fears and guys like me get serious about it and concerned.

Mr. LYONS. Not having had the benefit of participating in those discussions, I would assure you that the administration is very concerned about and committed to recognizing private property rights and those concerns. On the other side of my ledger—the other area I work in, conservation—of course, we were active proponents of a very strong conservation title in the farm bill that was based on an incentive approach, a long-term approach to addressing some of the same conservation issues. They may be agricultural and ranchland issues, but similar conservation issues exist in the area. So we are very much committed to that.

You know——

Mr. NETHERCUTT. That's a strong provision in the farm bill, in my opinion. That's an environmentally-sound farm bill this year. Maybe you disagree, but——

Mr. LYONS. No, no, we're pleased to see it move forward, that portion of the farm bill. We had problems with other parts——

Mr. NETHERCUTT. Right, right.

Mr. LYONS. And we're anxious to get on the ground and make it work.

COMMUNITY INVOLVEMENT

Mr. NETHERCUTT. Sure. Good. I didn't mean to cut you off. Go ahead, if you were going to say something else.

Mr. LYONS. The only point I wanted to make was that community involvement clearly is critical, not only to the credibility of what we do, but, more importantly, to the future of those communities. They're the ones that have to determine the future.

It was in 1906 that Gifford Pinchot said, "The national forests are owned and run by the people," and it's their will that should be implemented on the ground. But for that to happen, the people have to take a very active role in deciding what future they see for their forests. That's what the forest planning process is all about.

Mr. NETHERCUTT. Sure.

Mr. LYONS. And that's why this east-side process has been such an open process. We want that input. We want the communities to decide the future as they see it. Our role is to provide technical assistance, advice, and professional guidance to make sure whatever it is is sustainable and will last for generations to come.

Mr. NETHERCUTT. Mr. Dicks.

TIMBER SALES CONCERNS

Mr. DICKS. I would just—you know, yesterday Secretary Babbitt was here, and he got into his litany that the sales on the—the murrelet sales, the 318 sales, would undermine the President's forest plan. I certainly hope that isn't the case. My judgment, when you look at this thing objectively—and I've talked to some experts about this, including Jerry Franklin, who characterized as this "ecologically significant." Now, Jack, I know you might find that shocking, but it was not Chad Oliver, either, who said this—Jerry Franklin.

And when you're talking about one-fourth of 1 percent of the murrelet habitat—now I realize in the Siuslaw forest this is a serious problem, but I think we need—I think rhetoric, we can get all carried away with our rhetoric here. We need to keep this thing in perspective. And the last thing we need to do is create a self-fulfilling prophecy, because I think this thing, when looked at objectively, is politically important. And there are certainly sales in Siuslaw and Umpqua that I am concerned about, and I think that's why we need some flexibility to try to substitute here.

But I think we need to all work together to try to minimize the damage and to protect the President's plan. And I think sometimes Cabinet officers tend to get caught up in their rhetoric. And I'm not saying this about you, Jim, but I'm talking about the people at a little higher level, especially from the Interior Department. I think we can create a bad result here, not intending to do it, by overplaying this thing. So I'd just mention that here today because I do think we have to preserve this plan because we don't want to be back in court enjoined again with zero timber sales. So for the good of the order.

Mr. LYONS. We agree.

Mr. DICKS. Thank you, Mr. Chairman.

Mr. NETHERCUTT. Does the gentleman have anything further? If he has nothing further, we thank you for your testimony and your appearance here today. We'll do the best we can on funding this year. Thank you.

Mr. LYONS. Thank you.

Mr. NETHERCUTT. The hearing is adjourned.

[Questions and answers for the record follow:]

HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR AND RELATED AGENCIES
HEARING ON THE FY 1997 FOREST SERVICE BUDGET REQUEST
(April 25, 1996)

ADDITIONAL QUESTIONS FROM CHAIRMAN RALPH REGULA

SUMMARY OF APPROPRIATIONS AND STAFFING

FY 1995 Appropriations	$2,357,664,000
FY 1996 Conference Action	$2,165,773,000
FY 1997 Request	$2,237,052,000
Difference	$+71,279,000

FY 1995 Staffing	37,587
FY 1996 Staffing	37,646
FY 1997 Staffing	37,721
Difference	+75

PRIORITIES

001. Question: As you know, we are living in a time where government funds are decreasing. You have asked for funding increases in several programs. Please let us know what your most urgent increases are.

Answer: When the funding levels of Forest Service programs in the FY 1997 President's budget request are compared to FY 1996 funding levels, the programmatic increases are very modest. In fact, increased pay costs for employees and inflation will consume a large portion of the proposed increases in many program areas. In several instances, programs with proposed increases in FY 1997 are still below the FY 1995 funding levels for these programs.

Key budget priorities include funding related to research, forest health management, restoring deteriorated ecosystems, and the ecologically sustainable production of goods and services.

002. Question: Of the programs which you have asked for minor or no increases, do any come to mind as also being of a higher priority?

Answer: The President's FY 1997 budget request for the Forest Service has been carefully prioritized and balanced to focus on the most critical needs at hand, while recognizing the limits on available funding. When compared to the FY 1996 enacted appropriation, there are many important Forest Service programs that have either been constrained to minor increases, no increase, or even small decreases in the FY 1997 budget request.

003. Question: What has the Forest Service done in the past year to downsize its workforce commensurate with its funding level?

Answer: Since the downsizing effort started in 1992, permanent employment has been reduced by over 4,400 positions through employment freezes, separation incentives, and aggressive priority placement. However, staffing was increased at the field (Ranger District) level as resources were shifted from headquarters offices.

The Forest Service has received authority for a reduction-in-force from the Secretary of Agriculture in the Forest Research organization, as necessary, to help manage the major budget reduction incurred in fiscal year 1996. We expect use to be minimal. However, three research stations have indicated that they will implement RIF in FY 1996.

The Forest Service has also received early retirement authority for fiscal year 1996 from the Secretary and has delegated the authority to all units.

WORKFORCE MANAGEMENT

004. Question: How much of the funding for the Forest Service comes from trust funds and permanent appropriations?

Answer: As detailed in the FY 1997 Forest Service Budget Explanatory Notes, the anticipated need and request for permanent appropriations and trust funds totals $805.939 million. These funds represent 26.5% of the total Forest Service request for FY 1997.

If permanent appropriations that are payment-related (i.e., States, counties) are excluded, the total anticipated need and request for permanent appropriations and trust funds for the Forest Service in FY 1997 would be $513.407 million. These funds would then constitute about 18.7% of the total Forest Service request for FY 1997.

005. Question: How many employees took the buyout? Was this a successful program? How many employees took advantage of the chance to work again for the Forest Service without loosing their incentive fee as a result of the 1995 recission act?

Answer: Almost 3200 employees took the buyout. The buyouts provided the Forest Service an opportunity to successfully achieve staffing reductions required under the National Performance Review and in response to budget reductions. Only four employees have been rehired under the provision in the recission act for waiving repayment of the buyout.

006. Question: How many more employees will need to be eliminated if your 1997 funding level is the same as in 1996? What happens if you get a 10% reduction in funding?

Answer: If FY 1997 funding remains the same as the FY 1996 funding level, we estimate that the Forest Service would reduce permanent workforce by 1,000 to 1,300 employees (3-4 percent) during FY 1997. The agency would continue to have difficulty providing some of the services that the public expects, but would be able to meet attainment targets for most programs.

A reduction of 10 percent, depending on where it is targeted, could require a reduction of over 3,000 permanent employees. A buyout, reduction-in-force, and/or furlough would be necessary since this exceeds the normal turnover rate. In addition, a 10 percent reduction could further impact the delivery of services to the public and would threaten target attainment.

007. Question: How many offices did you close last year? Do you plan on closing any offices this year, either by eliminating programs or consolidating services?

Answer: In FY 1995, the Forest Service closed 9 offices. In FY 1996, the Forest Service has closed 10 offices and will likely close another 2-3 offices this fiscal year. In FY 1996, one closure was due to the elimination of a research project, but all other closures were due to sharing or consolidation of services or duties.

008. Question: What are you doing to protect the operations at the field level? How successful have you been at reducing your Washington and regional office staffing?

Answer: All levels of the agency have been impacted by the budget reductions, but we have taken many steps to minimize the impact at the field level. The most visible action deals with reorganizations. Since October 1992, we have reorganized some regional offices, administratively consolidated 8 National Forests into 4 administrative units, and reduced the number of ranger districts by 24. The principle goal of the reorganizations is to reduce the number of administrative and supervisory positions, as well as office expenses.

Since October 1992, we have reduced Washington Office employment by 25 percent (200 positions) and have targeted an additional 20 positions for abolishment. We have also reduced Regional Office employment by 15 percent (483 positions) during this same timeframe. In addition, we have reduced Research by 18 percent (473 positions) of which approximately 100 positions were administrative or support positions located at station headquarters.

Employment in the field within the National Forest System has seen a smaller percentage reduction (12 percent) and most of this is related to reduction in the timber outputs. The reduction in the National Forest System has been about 3,300 positions.

ROLE OF WHITE HOUSE AND THE ADMINISTRATION IN FIELD MANAGEMENT DECISIONS

009. Question: It's nice to have a member of the administration here, Mr. Lyons, along with you, Dr. Thomas, who may be the nation's highest ranking wildlife biologist. We have been hearing of Administration and even White House, intervention in day-to-day forest management decisions. Do you care to let us know what the roles are of political and professional staffs in your organization now?

Answer: As in previous Administrations, the USDA Office of Natural Resources and Environment continues to supervise the operations of the Forest Service, and provide policy leadership in line with the Administration's goals and objectives. The Forest Service, following applicable laws and regulations, continues to carry out the agency's mission in three primary areas: forest and rangeland research, State and private forestry programs, and management of the national forests and grasslands.

010. Question: Has there been political interference in field-level decisions, such as deciding whether or not to allow individual timber sales in the Northwest to be harvested?

Answer: Field-level decisions are made by field line officers, within the scope of their delegated authority. Decisions on individual timber sales are made by field line officers, and are subject to review by higher authorities.

011. Question: Who made the decision to change the policy on timber sale boundaries regarding the swapping of timber?

Answer: We assume this question refers to the new interim rule, 36 CFR 223.85, which allows the substitution of timber from outside the sale area on sales subject to section 2001 (k), Public Law 104-19, that are potentially harmful to natural resources. This rule was issued by Secretary Glickman on April 3, 1996, pursuant to Title 16, U.S.C. 472a(d) which allows for non-competitive award of timber sales if the sales are less than $10,000 in value or the Secretary determines that extraordinary circumstances warrant it.

012. Question: What was the Secretary's office involvement in the decision to alter the First and Last Timber Sale on the Umpqua National Forest?

Answer: The Under Secretary for Natural Resources and Environment issued a letter on April 4, 1996, which authorized the Forest Service to use the Secretary's authority in 36 CFR 223.85 to substitute replacement timber for the timber in five sale contracts, including the First and Last timber sales on the Umpqua National Forest.

013. Question: Who was involved in decisions to fund the Quincy Library Group in northern California using Washington office funds?

Answer: The decision to provide additional funds to the Pacific Southwest Region for additional emphasis in the Quincy Library Group areas was made by the Chief, the Under Secretary for Natural Resources and Environment, and the Secretary.

The Quincy Library Group area includes the Lassen and Plumas National Forests, and the Sierraville Ranger District of the Tahoe National Forest. The funds provided are to be used for fire hazard reduction; plan revisions; watershed/riparian restoration and monitoring; inventory and associated evaluations.

The source of funds is varied. Additional allocations were directed to this area from: 1) the increase in fuels management in the FY 1996 appropriation; 2) as a part of the FY 1996 timber program; and 3) from funds available in the Washington Office. Often, Washington Office funds carried over from the previous fiscal year are used to address key national priorities. The Chief also maintains a small contingency fund to address emerging issues.

014. Question: Chief, can you assure us that you will see that professional decisions will be made in a professional manner and that field-level decision makers are protected from political interference?

Answer: Field-level decisions will continue to be made by field line officers operating within the bounds of their delegated authority. These line officers are guided by laws, regulations, and written agency policy. Field line officers are accountable to and supervised by higher level line officers within the Forest Service.

FOREST HEALTH SITUATION

015. Question: I constantly hear of overall problems with the health of America's forests, including the National Forest System? What is the status and what are you doing?

Answer: It is difficult to summarize the forest health in one national assessment(1/3 of the nation's area is in forests), however, our data indicates the overall health of America's forests is good. We are monitoring forest health in all 50 states and in-depth monitoring occurs in 20 states through the Forest Health Monitoring Program--FHM. The FY 1997 budget allows in-depth monitoring in 8 additional states for a total of 28 states in FY 1997. Monitoring efforts indicate no widespread forest decline. In the 9 states that have been in the FHM program the longest, the trees that are measured have forest crowns in acceptable condition in 95% of the cases.

However, there are regional and local health problems that are causing great concern. Some of the key issues we are concerned about and are addressing through various actions include the proliferation of exotic pests displacing native vegetation, overcrowding in forests creating favorable conditions for pest epidemics and subsequent catastrophic fires, and the reintroduction of fire into ecosystems where it has been largely excluded. Policies are being revamped to focus on forest health. On-the-ground activities that reduce stand density and reduce fuel loadings are proceeding--but our budgets are limited in this regard. The Western Forest Health Initiative is a large effort providing examples of projects aimed at improving forest health and we have completed 60 of 320 projects that aim to reduce stand density, diminish fuel loadings and restore degraded ecosystems.

016. Question: What is the role of past fire prevention in causing the proliferation of dense, overstocked and unhealthy forests, especially in the west?

Answer: The effect of wildland fire, or its exclusion, has a profound influence on the composition, structure, and function of ecosystems. The most critical effect of fire exclusion occurs when vegetative patterns and composition change due to the buildup of live and dead forest fuel. The potential impacts to forest health include changes in species composition and stand structure which predispose areas to insect attack, disease outbreaks, susceptibility to drought, and severe wildfires. Increased insect and disease occurrence will lead to greater needs in pest prevention and suppression.

017. Question: How much will it cost to tackle this huge problem of overstocked trees? How did you ever let it get to this bad situation? Was this a failure of management, policy or science?

Answer: High stocking levels have arisen and now persist in forested ecosystems for a variety of reasons. The single-most significant factor contributing to increases in stocking arises from fire suppression efforts over the past ninety years. This has led to increases in biomass and millions of acres of forest stands with dense understories in fire-dependent forest ecosystems.

Tackling this problem will require sustained investment over a long period of time with a variety of tools. Commercial timber harvest is one tool. Prescribed fire is another. Precommercial thinning represents a third important tool in dealing with this problem. It will not be possible to quickly fix this long-term problem. In 1994, we chartered the Western Forest Health Initiative to help us in identifying future priorities. We are pleased with the progress that has been made to date as a result of that effort.

It will be also be costly to make significant rapid progress in dealing with overstocked conditions. A sustained commitment of resources over the next ten to fifteen years will be necessary for success. We will continue to work with the Administration and with Congress to seek the resources needed to do this work.

018. Question: Have you asked for sufficient funding to begin to remedy this problem?

Answer: Our FY 1997 request will help us make some progress in this area. The request includes a total of $ 190 million for timber sale preparation and administration and a substantial amount of this work will be done to prepare commercial thinnings to reduce biomass. The FY 1997 request also includes approximately $11.7 million for timber stand improvement operations on about 36 thousand acres. K-V funds will provide resources for treatment of an additional 100 to 125 thousand acres. Based upon our field request, we have additional capability to treat an additional 92 thousand acres, if appropriated funding could be made available for this purpose.

019. Question: What are some of the key insect and disease problems around the nation? Do you have the capability to detect, monitor and control outbreaks that could cause tremendous economic impacts?

Answer: Key insect and disease problems around the nation include:

o **The southern pine beetle**, for which current epidemic population levels represent the most significant outbreak on record, with southwide estimates of timber volume losses alone in excess of $300 million;

o **The Alaska bark beetle** infestation, which is steadily increasing, with estimates of 3 billion BF of timber killed in the last 4 years across all ownerships (2/3 of which are State and private lands);

o **Gypsy moth** defoliation, which continues to be notable in Virginia, West Virginia, Pennsylvania, Ohio, New Jersey, Michigan, Maryland and Delaware. Defoliation increased from 877,000 acres in 1994 to 1.4 million acres in 1995, with average annual Forest Service suppression and eradication costs at $13.4 million for 1991-95; and,

o **Oak wilt disease**, which continues to be a significant problem in Texas and Minnesota.

o Bark beetles and dwarf mistletoe continue to cause tree mortality and growth loss in the inland west and intermountain region. The pest problems contribute to diminishing forest health, and combined with a history of fire exclusion in some areas, increases the potential for wildfire.

While the current budget climate constrains our ability to expand the Forest Health Monitoring Program, the Forest Service will continue to assess major trends and detect important outbreaks.

020. Question: What are the economic losses caused, or potentially caused, by insect and disease outbreaks?

Answer: On average, insect and disease outbreaks result in losses of $1.5 billion annually (in 1995 dollars) in timber related products alone. Losses in other resource values, such as wildlife habitat, scenic beauty, and watershed stability are also substantial, but difficult to quantify.

021. Question: What is the cost effectiveness of your control efforts? How does this compare with the efforts of the state cooperative programs that are also funded through the Forest Service?

Answer: Forest Health Protection routinely analyzes the efficiency of insect and disease suppression. Previous analyzes determined that for every dollar expended for forest health management both on federal as well as cooperative lands, over five dollars of resource loss or future suppression costs are avoided. This figure is based on timber protected only; not included are additional, but difficult to quantify, recreation, water and wildlife values.

022. Question: Are there other forest health problems of considerable economic impact? For instance, how bad is the noxious and invasive plant problem? What are the economic losses caused by weeds?

Answer: The noxious weed problem is growing rapidly throughout the United States, and along with exotic forest insects and diseases will likely be the most significant forest health problem of the 21st century. For instance, in Hawaii, invasive alien plants are the most important forest health problem. Over 869 new alien plant species have become established in the forests of Hawaii, and have caused 107 native plants to become extinct. The greatest impacts of invasive alien plants are the loss of wildlife habitat and the watershed protection capacities of the native vegetation. Additional problems are created for reforestation/aforestation efforts. Approximately 7 million acres of National Forest lands are infested with noxious and invasive weeds. At this time, we have not made an assessment of overall economic losses caused by weeds on state and private or National Forest System lands.

023. Question: Have budget trends and downsizing affected the Forest Service's ability to provide pest management technical assistance to resource managers?

Answer: The FY 1997 budget for Forest Health Protection supports continued technical assistance to resource managers. However, lower Research budgets and staffing levels have reduced the numbers of scientists in the fields of forest entomology and pathology Research. This translates into a reduced capability of Research to assist with high priority forest insect and disease problems and transfer technology to Forest Health Protection specialists, who in turn assist resource managers to apply pest management strategies on-the-ground.

024. Question: What does the FY 1997 proposal include for pest prevention and suppression? How does this amount relate to the 5-year average for federal and non-federal lands?

Answer: The FY 1997 budget includes $3,329,000 for prevention and suppression on federal lands and $7,100,000 for prevention and suppression on non-federal lands (State and private lands). These amounts represent 23 percent of the 5-year annual average pest suppression expenditure for all federal and Tribal lands, and 60 percent of the 5-year average annual pest suppression expenditure for non-federal lands. On non-federal lands, the 60 percent level will allow the Forest Service to address some of the highest priority national prevention and suppression neeeds, including gypsy moth, southern pine beetle, and oak wilt. Forest Service activities on non-federal lands are cost-shared, and it is estimated that the proposed budget for prevention and suppression on non-federal lands will leverage nearly $7.5 million in State funds.

025. Question: Are there any available pest prevention and suppression funds for FY 1997 from the Emergency Pest Suppression program?

Answer: No. The Emergency Pest Suppression program was eliminated in the FY 1996 budget. We expect that carryover funds from prior years will be completely used for FY 1996 activities to meet southern pine beetle suppression and other critical needs.

026. Question: What is your plan to address prevention and suppression needs not provided by the FY 1997 President's budget?

Answer: The pest suppression funds available in FY 1997 will be used to meet only the very highest priority pest suppression needs. On cooperative lands, states and private landowners will have to assume a higher share of suppression costs, or reduce suppression projects.

027. Question: With only about 40% of the needed funds for prevention and suppression activities on both federal and non-federal lands being proposed in the FY 1997 budget, what will be the impacts on the nation's forests.

Answer: The FY 1997 budget will allow the Forest Service to meet 23% of anticipated pest suppression needs on federal lands. Overall, reduced prevention and suppression efforts will result in some decline in the health of the Nation's forests on federal lands through the damage and spread of forest pests.

On State and private lands, about 60 percent of the federal share of suppression projects will be met. States, local communities, and landowners will have either to reduce suppression projects or to fund a higher percentage of the total suppression cost in FY 1997. It is likely that some high priority suppression projects on State and private lands will not be met in FY 1997.

NATIONAL FOREST SYSTEM APPROPRIATION

TIMBER SUPPLY

028. Question: Why has the timber program shrunk so much during the past 5 years? Is timber no longer considered a resource that the Forest Service should provide? Is timber now a by-product of your endless ecosystem assessments and planning, or a resource you intend to produce?

Answer: The timber program has declined in recent years for a number of reasons. A primary reason for much of the decline is that many of the assumptions used in the development of Forest Plans have proven to be invalid. Definitive scientific information, public input, court rulings and more comprehensive cumulative effects analyses have all resulted in significant changed conditions from when the plans were developed. In most every case, a changed condition has resulted in less available volume. Our goal is to continue to provide timber but at levels that are sustainable over the long term.

Timber is not merely a by-product resource of the national forests. Along with all of the other multiple uses, timber continues to be an important natural resource produced on National Forests. However, by using broad scale assessments and the principles of ecosystem management, we are able to better integrate all resource activities and objectives of the national forests. Therefore, rather than viewing individual resources as an end in themselves, they are considered in a balance within larger economic, social and biological contexts.

029. Question: Since timber management and timber supply seem to be such hot issues for the Forest Service, why are you only requesting a small increase of less than 2 million dollars? What increased services or timber sale volume will this small funding increase support?

Answer: The President's FY 1997 budget request for the Forest Service was carefully prioritized and balanced to focus on the most critical needs at hand, while recognizing the limits on available funding. The increase in timber had to be considered as a part of the overall budget request for the Forest Service. The increased funding is estimated to produce a net increase in total green volume offered for sale of about 127 million board feet from FY 1996.

030. Question: In the budget request you propose to offer 4.2 billion board feet of timber of which only 2.75 billion is from the green timber sale program. Will you be able to fulfill the 1.45 billion salvage required as well as the green timber sale program? Is there adequate funding in the budget request to achieve the 4.2 billion board feet?

Answer: At this time, we project that the 1.45 bbf in salvage can be achieved. As with any projections of salvage volume, the actual accomplishments are dependant on agents affecting tree mortality (weather, fire, insects and diseases, etc.) and their degree of severity in any one year. FY 1997 will be no different--if these factors follow normal patterns, the 1.45 bbf salvage program should be achieved.

Funding for the green timber sale program is adequate to produce 2.75 bbf. Funding is not available to increase the amount of timber sales prepared in advance.

031. Question: There appears that there is no doubt that the Forest Service could harvest more than 4.2 billion board feet from the NFS in a sustainable fashion. To what extent is your harvest limited by the timber sale and road appropriation? If the timber sale preparation account were increased by 10 or 20 percent, what would be the resulting timber harvest levels?

Answer: The current timber sale management and timber road construction funding level sustains a regular offer level of approximately 2.75 billion board feet (BBF). The remainder of the 4.2 BBF in the 1997 budget request is salvage volume funded from the salvage sale fund. There may be potential to increase the timber sale levels closer to the higher level of allowable sale quantities currently shown in forest plans. However, achieving harvest at these levels is not certain until forest plans have been revised to reflect conditions that have changed since the plans were adopted.

The timber sale program is also limited by not having advanced sale preparation or pipeline volume completed. Timber sales take up to 2 to 3 years to complete sale preparation activities prior to offering the sale. Increasing funds in one year, 1997, would not result in increased timber offered for sale, as it would be very difficult to prepare and offer additional volume in one year. The most effective use of a 10% to 20% increase in funding would be to begin to build an outyear sale program over the next 5 years.

032. Question: Several public witnesses have testified that a much more appropriate timber sale level would be 6.5 billion board feet nationally, including green and salvage. Is this a reasonable harvest level? Why or why not? This is considerably less than the total level of the current forest plans.

Answer: A timber sale offer level of 6.5 billion board feet is not reasonable even though it is considerably less than the current level of forest plans. The Allowable Sale Quantity in currently approved Forest and Resource Management Plans is about 9.6 billion board feet. The current forest and resource plans were based on a set of assumptions valid at the time the plans were approved.

Since that time several major changes have occurred that result in limiting many forests' ability to achieve their ASQ. Some of the more significant changes include: the listing of the Northern Spotted Owl and subsequent resolution in the President's Plan for the Pacific Northwest (-2.1 BBF); the listing of the Mexican Spotted owl (-0.3 BBF); lack of wilderness legislation (inability to implement plans that called for entering roadless areas for timber harvest) in Idaho and Montana (-0.5 BBF); implementation of interim guidelines for the California Spotted Owl (these are currently being revised) (-0.5 BBF); and listing of the Red-cockaded woodpecker (-0.2 BBF). These changes alone have the effect of reducing the current ASQ to about 6.0 BBF.

There have also been other localized changes that also affect ASQ. Forest plans have not been revised to reflect all of these changes. Based on these changes, forests are estimating that timber program levels will likely be around 5.0 BBF (billion board feet), assuming a salvage sale program of 1.2 BBF. The 5.0 BBF level would include a regular offer program of 3.8 BBF, which is almost 40% greater than the level proposed in the FY 1997 budget request. The current lack of timber sales prepared in advance makes it unreasonable to achieve the 5.0 BBF level in the near future without a planned continuous program to establish a timber sale pipeline. Nor have final determinations been made that 5.0 BBF level would meet all legal requirements, be fully sustainable, and contribute to net benefits.

033. Question: What funding level and staffing changes would be needed to achieve this 6.5 BBF?

Answer: As outlined in the previous question, the 6.5 BBF level is not achievable. A more realistic level is approximately 5.0 BBF- 3.8 BBF of regular offer and 1.2 BBF of salvage. This level has not been validated on the ground or through planning to meet all essential requirements of law, policy, and economics. The limiting factors to increasing the regular offer level from 2.75 BBF in the FY 1997 budget request to 3.8 BBF are funding and personnel and the lead time needed to complete necessary advanced sale preparation work. Two to three years are needed from the time a sale is initiated until it is offered for sale. Recent reductions in personnel have resulted in the loss of skilled personnel that could be committed to an increased effort. Additional funding would be needed to restore the current timber sale pipeline, build pipeline for the increased level of green offer, and sustain a higher green program level.

034. Question: What portion of the timber sale program output was offered for sale but was not sold? Please provide a table for the past 3 years.

Answer: About 9 percent of the volume offered over the last three fiscal years was not sold. The following table shows each fiscal year.

	FY 1993	FY 1994	FY 1995
	(Volume in billion board feet)		
Volume Offered	4.55	3.41	4.01
Volume Sold in Year of Offer	3.72	2.56	2.49
Volume Sold Following Fiscal Year	.50	.40	.73 1/
Long-term Contract Volume Released 2/	.21	.18	.14
Volume Not Sold	.12	.27	.65
Percent of Offer Not Sold	3%	8%	16%

1/ Through 2nd Quarter of fiscal year 1996.
2/ Volume released from long-term contracts in Region 10 is not counted toward sold volume since this volume was previously recorded as sold in the 1950's.

035. Question: What are the major reasons timber sales are not purchased? Does this differ in different regions?

Answer: The majority of the volume not sold is the result of receiving no bids for the timber. No bids result from market conditions and the type of material being offered for sale. Generally most of these sales are redesigned and eventually sell. The volume not sold in fiscal year 1995 is particularly high because of the significant drop in value in the lumber and chip market experienced in 1995. In addition, some salvage sales volume did not sell due to the rapid deterioration of the trees which occurred during sale preparation and advertisement. The greatest number of no bids occurred in Regions 1, 4, and 6 in fiscal year 1995. Also, in FY 1995 157 million board feet of timber offered or released for sale was not sold because of litigation, primarily in Regions 3 and 10 with 31 MMBF and 108 MMBF respectively. There are some sales which are offered and receive bids but are not awarded in a timely manner for a variety of reasons, including invalid bids, protest, or default. These sales are eventually awarded or reoffered. All of these factors vary by region depending on local markets and the scope of lawsuits.

036. Question: What will be the impact to the timber program if section

2001(k) of P.L. 104-19 is allowed to expire at the end of FY 1996?

Answer: The Forest Service is currently involved in extensive litigation on several issues related to Section 2001(k). The resolution of these legal questions is necessary before the agency can respond with any assurance. We will keep the Committee apprised of future developments.

TIMBER AND FOREST PLANS

037. Question: What is the total timber allowable sale quantity (ASQ) as listed in the current Forest and Resource Management Plans? Why is this so much higher than your recent sale performance? Will you ever catch up with your plans?

Answer: The Allowable Sale Quantity in currently approved Forest and Resource Management Plans is about 9.6 billion board feet. Recent volume offered for sale has been substantially below the current ASQ. Although the current forest and resource plans were based on a set of assumptions valid at the time the plans were approved, many significant changes have occurred since the plans were approved. Improved scientific knowledge, more comprehensive cumulative effects analyses and numerous court rulings have all contributed to the reductions in timber volume offered. There have also been other localized changes that also affect ASQ.

Current estimates indicate the ASQ after all forest and resource management plans are revised will likely be around 5.0 BBF, assuming a salvage sale level of about 1.2 BBF. The 5.0 BBF level assumes a green offer program of 3.8 BBF, which is significantly greater than the 2.75 BBF level proposed in the FY 1997 budget request. There is potential to achieve this revised ASQ. However, given the current lack of timber sales prepared in advance makes it unreasonable to achieve the 5.0 BBF level in the immediate future without a planned program to establish a pipeline of timber sales.

038. Question: How does the funding level for timber sale preparation and related accounts compare with the funding levels recommended by the forest plans? Please provide a table which shows the forest plan funding levels and the appropriated funding levels in timber sale preparation and timber road construction for the past 3 years; include national and regional entries.

Answer: Individual land and resource management plans (forest plans) provide estimates of dollar amounts needed to fund activities in the the plan at 100%. Until FY 1994, the Forest Service compiled detailed budget information for on Forest Plan implementation needs. This information showed that most individual forests were operating with substantially less appropriated funds than called for in forest plans. After several years of substantial work in preparing this data, House and Senate Appropriations Committees both agreed that information of this kind was not useful or efficient for budget appropriations and its compilation was suspended.

Anticipating changes in funding levels needed for plan implementation has also been difficult. Preparing a forest plan alone can take two to four years and some forests have already begun the process of plan revision. Over the life of the plan or planning process, changing economic and resource conditions or forest priorities can make the projection of forest plan implementation costs difficult. Therefore, forest plan implementation levels were not thought to be a good tool on which to base appropriation decisions.

039. Question: What is the annual timber volume growth on the commercial timber lands available for harvest within the national forest system?

Answer: We do not have precise figures at the national level for the net timber growth on the 49 million acres of national forest land available for timber harvest in forest plans. However, a reasonable estimate of net growth is about 1.9 billion cubic feet or about 9.5 billion board feet. Net growth is total growth minus mortality. Mortality on lands available for timber production is estimated to be about 0.7 billion cubic feet or about 3.5 billion board feet.

040. Question: Would it be possible, as some have suggested, to mandate that the timber harvest be equal to the timber growth on commmercial timber lands?

Answer: It would not be prudent to mandate that timber harvest be equal to timber growth. There are instances when it is reasonable to to cut more than growth. For example, in diseased or decadent forests, rapid treatment for forest health or other objectives might require the harvest of substantially more volume than was currently growing.

There are also many situations where, for a variety of reasons, one would want to harvest less than growth. For example, where we wish to build up timber inventories, such as on formerly cutover lands now within the eastern national forests, this mandate would not allow us to increase the timber inventory. Where harvest objectives benefit other forest resources, requiring that harvest be equal to growth would limit our ability to accomplish those objectives. Examples include but are not limited to: vegetative manipulation to improve habitat for a particular wildlife species, managing for visual quality of an area, or the maintenance of watershed stability.

TIMBER SALVAGE

041. Question: How much of the 1.45 billion board feet of salvage would be prepared and offered for sale if Public Law 104-19 was not in existence?

Answer: It would be speculative at best to try and determine the amount of the 1.45 bbf that could be achieved without P.L. 104-19. We suspect that most of the salvage would be accomplished anyway, but additional salvage sale funding would be needed to cover the added

NEPA documentation and appeals and litigation workload. Additional time would be required to prepare and offer the sales. Based on past experience, we anticipate that the regions could accomplish at least 90 percent of the planned salvage under normal conditions.

042. Question: What will be the impact to the timber program if the timber salvage provision in P.L. 104-19 expires at the end of FY 1996?

Answer: The salvage provisions are scheduled to expire at the end of the first quarter of FY 1997. If they were to expire at the end of FY 1996, there would be additional workload associated with NEPA documentation, appeals, and litigation for approximately 700 mmbf of salvage. This could produce a slight reduction in the amount of salvage accomplished in FY 1997 or, it could result in a direct offset of personnel and resources available to produce the green program and pipeline for future green programs.

043. Question: If the salvage provisions of P.L. 104-19 were extended to September 1997, what additional volume would you be able to produce above and beyond the 1.45 billion board feet you projected for FY 1997?

Answer: At this point, given a normal year for tree mortality, we do not anticipate any additional salvage being available beyond the 1.45 bbf that can be recovered in an environmentally sound manner. The 1.45 bbf estimate is based on projected recoverable salvage. Additional personnel or reduced process requirements are not the limiting factors in this estimate. Thus, extending the provisions of P.L. 104-19 to September, 1997 would not serve to create any increase in salvage volumes produced.

TIMBER SALE ACCOUNTABILITY

044. Question: There currently appears to be little accountability for the individual forests, regions, or the national office to achieve timber harvest levels. What are the current accountability methods at these levels? Which of the units have failed to meet their targets during FY 1995? What has happened to the personnel of these offices?

Answer: Timber volume harvested is used in the Forest service's Management Attainment Reporting System (MAR) as a measurable outcome of the forestland management program. However, it is not considered a target because the agency has so little control over when volume sold to purchasers will actually be harvested and reported as such. In fact, purchasers commonly delay harvesting purchased timber to coincide with favorable market conditions.

Timber volume offered for sale is used as a target. The following table shows the Regional accomplishments for FY 1995.

TIMBER VOLUME OFFERED BY REGION (MMBF)

Region	Planned	Accomplished	% Accomp.
1	396	248.7	62.8
2	227	176.5	77.8
3	157	128.9	82.1
4	511	388.6	76.0
5	670	544.4	81.3
6	624	776.8	124.5
8	839	870.1	103.7
9	572	576.6	100.8
10	278	296.1	106.5
Total	4,274	4,006.7	93.7

Targets are negotiated at the beginning of the fiscal year and adjusted, if required, at the time of the mid-year financial review. At the field level, District Rangers are accountable to Forest Supervisors, Forest Supervisors to Regional Foresters, and Regional Foresters are ultimately accountable to the Chief of the Forest Service. Timber output accomplishments are reviewed at the Regional and National levels for accuracy through the Periodic Timber Sale Accomplishment Reports and the quarterly MARs. Target accomplishment for the fiscal year and recent trends are calculated at the end of the fiscal year and provided to the Chief for use in mid-year performance reviews with the Regional Foresters.

Forest Service managers are responsible and accountable for overall integration of National Forest System programs, and for outputs in other areas such as recreation, minerals, grazing and fish and wildlife, and watershed restoration, to name a few. At all levels of the agency, we take seriously our accountability in providing timber and other program services. Performance is considered in light of overall accomplishments and actions taken to overcome circumstances leading to target shortfalls.

PRESIDENT'S PACIFIC NORTHWEST FOREST PLAN

045. Question: How much money has the Forest Service now put into this plan?

Answer: Planned Forest Service funding for the Pacific Northwest Plan from FY 1994 through FY 1996 is $298.161 million (FY 1994 - $95.8 million, FY 1995 - $94.961 million, FY 1996 - $107.4 million).

046. Question: How much have other agencies put in?

Answer: There are several agencies cooperating in the implementation of the Pacific Northwest Plan. The Forest Service does not maintain detailed information on the funding of these agencies as they implement various Plan-related activities.

047. Question: Why is this effort so expensive? Are we really getting our money's worth with all of the expensive watershed analysis? What are some of the other tasks that are so costly?

Answer: Although initial start-up costs were relatively expensive, costs have declined significantly as a result of standardizing the process. When analyses are performed by experienced personnel and there is an existing data source, costs average $20,000-40,000 per analysis. Similar analyses initially cost as much as $200,000 each.

Whether we are "getting our money's worth" is a value judgement. Watershed analysis involves an evaluation of all components of a watershed. This includes a consideration of physical, biologic, social and economic conditions and relationships. Information is collected that is needed for an understanding of the existing conditions of each of these components, the interrelationships between the physical and biological, and the potential to derive the desired condition. From this information, the impact of proposed management actions on the environment can be estimated, as well as the impact on social and economic structure. Without information that defines the interrelationships between the physical and biologic components of environments, it is not possible to estimate impacts of proposed management actions to acceptable levels of precision and accuracy. The value of these analyses are felt now and will likely continue to be useful in future management.

048. Question: What has been accomplished? It appears that you are still far below your timber sale targets promised in the past. How do your timber sale and harvest levels compare with your predicted sale levels? Provide a table for the past 3 years.

Answer: The Chief has indicated to the Congress and the public that the Forest Service needed time to build up to the probable sale quantity (PSQ) specified in the PNW Plan. He noted that the agency would produce 40 percent of the PSQ in 1994, 60 percent in FY 1995, 80 percent in FY 1996, and 100 percent in FY 1997 and beyond. The FY 1994 offer fell short of the planned level, but the difference was made up in 1995 achievements. Although the Forest Service is on track to accomplish the FY 1996 offer level, timber and other resource personnel in the region are spending significant amounts of time working on litigation related to section 2001 (k) of P.L. 104-19 and requirements of the resulting court orders. It is difficult to predict how this unplanned workload will affect the final accomplishments for FY's 1996 and 1997.

The following table indicates the planned and actual Forest Service timber accomplishments since the Plan was implemented (excludes BLM).

Fiscal Year	Planned Offer--MMBF (% of PSQ)	Actual Accomplished (MMBF) Offer	Sold	Harvest
1994	273 (40%)	233	226	642
1995	416 (60%)	493	387	437

1996	555 (80%)
1997	694 (100%)

049. Question: What are we buying with the economic assistance and the "jobs-in-the-woods" programs? Are these programs going to be of any lasting value or are they merely temporary hand-outs?

Answer: In Fiscal Year 1995, the Economic Assistance (EA) and Jobs-In-The-Woods (JITW) programs achieved the following results:

- Created over 900 jobs through EA;
- Created approximately 1700 jobs via JITW, which are generally of short duration compared to EA's;
- Assisted over 150 communities through EA;
- Awarded over 390 JITW contracts, of which over 90% went to contractors who live and/or operate their businesses within impacted communities;
- Leveraged additional resources; In Oregon alone, the Old Growth Diversification funds, part of EA, stimulated the investment of over $10 for every $1 of agency funding.

Examples of successful projects involving Forest Service efforts include:

- Sony established a disc manufacturing plant in Springfield, Oregon. Agency funds targeted retraining of displaced timber workers. Sony has created over 300 full-time jobs, of which 13% are displaced timber workers previously employed in Oregon's forest and mills.
- A Forest Service grant helped Kalama, Washington convince an international steel manufacturer to build a steel coil finishing plant at their Port facility. This project resulted from a joint effort of federal and state partners and will initially employee 230 people.
- The agency awarded Point Arena, California a grant to train displaced timber workers to restore local watersheds. Initially, over 40 displaced workers were retrained, with 16 participants currently working in the watershed restoration field.

These programs will be of lasting value throughout Oregon, Washington, and northern California. The President's Forest Plan seeks to establish a sustainable balance between the needs of forest ecosystems and the needs of human economic systems. Examples include:

- Developing community infrastructure and strategic planning capabilities to help communities survive and prosper in the future.
- Establishing mutually beneficial partnerships with federal, state, local, tribal, private, and nonprofit sectors that have become the standard mode of operation throughout the region.
- Serving as a key member of the Natural Resources Partnership, an effort to collaborate with the States as partners in achieving sustainable ecosystems and communities.

050. Question: When can we anticipate not needing to fund the PNW forest plan any more?

Answer: The Pacific Northwest Forest Plan has resulted in a significantly changed approach to land and resource management. Key elements of the forest plan have included watershed assessment, timber harvest activities, adaptive management activities, research activities, planning and monitoring, and rural community assistance activities.

While in the future, there may be specific programs (e.g., Jobs in the Woods, etc.) that reach implementation goals and no longer require funding, the key elements of the Plan have essentially been incorporated into the core functions of the agency's ongoing mission in the Pacific Northwest area.

051. Question: What has become of the President's former Office of Forestry {and Economic Development--OFED}? Where have these people gone? Such as Tom Tuchmann? How many have burrowed into the civil service system? Are these people responsible for the political intervention in field level decisions that we hear about?

Answer: The United States Office of Forestry and Economic Development (OFED) has been closed. Secretary Glickman has asked Mr. Tuchmann to remain in Portland, OR, through calendar year 1996. Mr. Tuchmann will report to the Secretary of Agriculture. Mr. Tuchmann's primary responsibilities will be to finish the report on Northwest Forest Plan implementation that was requested in the FY 1995 Interior and Related Agencies Appropriations Conference Report and to assist the administration in assuring the salvage provisions of the rescissions bill are implemented in a manner that complies with the law without undermining the Northwest Forest Plan.

Forest Service officials have been and will continue to be responsible for all land management decisions under their authority.

The Forest Service officials responsible for making Forest Plan implementation decisions have done and will continue to do so.

Four career individuals were detailed to the U.S. Office of Forestry and Economic Development. One has returned to the Forest Service. Another will return to the Forest Service following completion of the report at the end of July. The remaining two staff will remain with the director until their term is completed at the end of the calendar year. The Bureau of Land Management has detailed a fifth employee on a term appointment which will be completed at the end of July.

TIMBER AND LUMBER PRICES

052. Question: What are the current trends in the nation's timber and lumber prices? What impact does the Forest Service timber have on these price trends?

Answer: There are many economic factors that impact lumber and timber prices -- growth in the economy, interest rates, changes in household size and composition, competitive supplies of timber, processing capacity and capability in the forest products sector are just a few. The National Forest System has been a significant supplier of timber for lumber and panel production -- key ingredients to the nation's housing stock. The effects of National Forest timber supply are most pronounced in the western States where a significant share of the timber inventory is on federal lands. The potential for impact is less severe in eastern and southern States where timber inventories on the National Forest lands represent only a small fraction of the timber inventory of private lands.

Current trends in the nation's lumber prices are visible in the movement of composite price indexes for framing lumber and structural panels prepared by Random Lengths Publications, Inc. (see table below) The data are the yearly average framing lumber composite price found on page 204 of the 1995 Yearbook - Forest Products Market Prices and Statistics.

Prices on the sale of timber among private sector parties are not widely published. Data on the bids for timber sales of the USDA Forest Service are reported in the quarterly publication Production, Prices, Employment and Trade in Northwest Forest Industries by the Pacific Northwest Research Station. These publications show that bid values have been on a long term upward trend. Data for the agency's Northern and Intermountain Regions are displayed in the table below. They show the trend clearly. In some other regions, such as the Pacific Northwest - west side, the trend is more uneven as the volumes offered to the market have changed substantially.

Year	Random Lengths Lumber Price Index	Average Bid Value of All Species on National Forest Timber Sales	
		Northern Reg.	Intermountain Reg.
1985	203	26.07	15.12
1986	218	28.23	23.74
1987	244	41.20	36.19
1988	236	47.23	57.68
1989	241	93.45	59.73
1990	230	111.23	69.75
1991	236	102.64	80.11
1992	287	149.51	123.13
1993	394	280.22	248.01
1994	410	244.82	230.84
1995	337	Not available	

The impact of Forest Service timber sales on lumber and timber prices varies as the agency's share of the national and local market changes. The volume sold on the National Forest System declined from 9.25 billion board feet in 1990 to 2.89 billion board feet in 1995. This reduction in volume offered effectively decreased the Nation's short-term timber supply by roughly 10 percent. This decline had its largest impact on softwood lumber production since much of the timber from public lands is manufactured into lumber.

The decrease in Federal timber supply in the early 1990's had little impact at first on the national wood products market. The recession of the early 1990's had lowered overall demand and there was still roughly one year'supply of uncut federal timber under contract. But, by 1993, there were two surges in softwood lumber prices with prices eventually peaking about double the 1990 price. These surges resulted from the interaction of many market-related variables, including, but not limited to, the decline in Federal timber harvest. Prices declined again in 1994 and stabilized in 1995 at about $100 per thousand board feet, a 30% overall price increase from 1990.

053. Question: What portion of the nation's hardwood and softwood does the National Forest system provide? How has this changed in the past 3 years?

Answer: The table below provides a partial answer. Since the data comes from different sources with varying time periods, direct comparisons are difficult:

	Total U.S. consumption			Total Forest Service harvest	
	Softwood	Hardwood		Softwood	Hardwood
	(million cubic feet)			(million cubic feet)	
calendar year			fiscal year		
1992	11,854	7,373	1992	1,298	160
1993	11,872	7,625	1993	1,027	156
1994	12,263	7,792	1994	820	143
1995	12,140	7,935	1995	645	128

054. Question: How important is the role of imports in influencing lumber prices in the U.S.? If we find ourselves with a restricted import base, what would be the result in demand for domestic wood?

Answer: Importing is more significant for softwoods than hardwoods. In 1995, imports of softwood lumber accounted for 36.6 percent of U.S. softwood lumber consumption. Most of these imports originate in Canada. We estimate that a 10 percent reduction in imports would result in increased demand of 266 million cubic feet in the United States.

055. Question: How are international buying habits changing and to what extent does this affect international demand for US forest products?

Answer: It is not clear from US forest products export data that international purchasing behavior has changed or that buying patterns are affecting international demand for US forest products. At the aggregate level, US solidwood exports have remained roughly constant for the last four years (see data below extracted from Wood Products: international Trade and Foreign Markets, WP 1-96, USDA Foreign Agricultural Service).

US Forest Products Exports to the World
(billions of US dollars)

	1992	1993	1994	1995
Logs	2.1	2.5	2.3	2.3
Lumber	2.3	2.4	2.4	2.4
Panels	0.9	0.9	0.9	1.0
Other	1.4	1.4	1.5	1.5
Total	6.7	7.3	7.0	7.2

Additionally, the countries buying US products and the level of their purchases have remained roughly constant. Top consumers of selected products for 1994 and 1995 are reported below.

Total US Solidwood	Softwood Lumber	Hardwood Lumber	Softwood Plywood
Japan	Japan	Canada	U.K.
Canada	Canada	Japan	Netherlands
Germany	Spain	Germany	Germany
S.Korea	Mexico	Italy	Canada
Mexico	Italy	Taiwan	Belgium-Lux.

TIMBER RECEIPTS

056. Question: How much revenue was provided to the U.S. treasury from the sale of national forest system timber the past 3 years?

Answer: The following tables displays the receipts and deposits from timber sales for fiscal years 1993, 1994, and 1995. At the end of each fiscal year, any money remaining in the National Forest Fund after payments to states are made is deposited in the General Fund of the Treasury. Data is from the annual "Report of the Forest Service".

	FY 1993	FY 1994 ($ x 1,000)	FY 1995
National Forest Fund	$425,105	$431,615	$303,046
K-V Fund	$269,056	$225,381	$177,951
Salvage Sale Fund	$193,747	$163,281	$135,640

057. Question: How much of the timber receipts were paid out to the states the past 3 years?

Answer: The following table displays the payments to states associated with the sale of timber from National Forests for fiscal years 1993, 1994, and 1995. These payments include the additional payments to those counties in the Pacific Northwest with forests affected by harvest reductions and subsequent revenue losses from listing of the Northern Spotted Owl. Data is from the "Timber Sale Program Annual Report" for each year.

FY 1993	FY 1994 (million dollars)	FY 1995

Payments to States	$288	$280	$257

058. Question: What do you expect the timber receipts to be if you are funded at the requested timber sale level?

Answer: The funding request for fiscal year 1997 for the timber sales management line item estimates a timber offer level of 4.18 billion board feet and a harvest level of 4.32 billion board feet. Harvest levels include harvest from volume under contract plus some volume from new sales. Receipt projections are based on harvest volumes.

National Forest Fund	$290,267,000
K-V Fund	$180,590,000
Salvage Sale Fund	$151,034,000

059. Question: To what extent do rural counties and schools depend on timber receipts for their programs since they lack a tax base because so much of their land is federally owned?

Answer: Existing legislation mandates the Forest Service to make a 25 percent National Forest Fund payment directly to the States - not to the counties. The payment is sent directly to the State Treasurers along with a report providing the distribution of the payment to the counties based on national forest acres in each county in accordance with 16 U.S.C. 500. It is up to the individual States to determine the actual distribution of funds for the benefit of schools and roads.

Information regarding amounts received by each county, or to what degree they depend on the 25 percent payment from the Forest Service is not available.

060. Question: What have been some of the impacts of the reduced receipts the past 3 years? How are the communities getting along? Are any of your economic assistance programs having an effect?

Answer: The Forest Service makes payments to States and each State determines how the funds are used to benefit counties in that State. Information regarding amounts received by each county, or to what degree they depend on the 25 percent payment from the Forest Service is not available.

Although community-specific data on economic conditions is not available, general information indicates that conditions vary depending on the region of the country and the specific local actions being taken to address changes in receipts or other economic factors. For example, some localities have seen a rise in timber production from private lands. This generates jobs and economic activity, but the dollars generated do not flow directly into the tax base of the counties as do federal receipts. Some communities are experiencing growth, and the impacts of the growth more than offset any reductions due to the loss of federal receipts.

Most communities that are receiving help from the Forest Service's Economic Recovery program have developed or are in the process of developing a strategic Local Action Plan to outline comprehensive goals and actions to address problems and opportunities. The Local Action Teams are using this action-oriented process to develop creative, community-led solutions to problems and opportunities. The Agency uses this program to help build the communities' capacity to manage current and future changes, including such things as reduced timber receipts. However, requests for assistance (organizing, planning, technical transfer, and project implementation) exceed the current program level. This indicates that other communities are still in need of help in their efforts to deal with their dependency on natural resource-based industries.

Several indicators exist to show that the Forest Service's Economic Assistance Programs are having a significant, positive effect in rural communities:

- **Public-Private Partnerships** are essential to building the trust and working relationships necessary to dealing with the changes faced by natural resource-dependent communities and the federal agencies charged with managing public lands. One example of such collaborative efforts is located in southwestern Colorado. The counties of Dolores and Montezuma, the Colorado Timber Industry Association, Colorado State Forest Service, San Juan National Forest, colleges and universities, and interested citizens have formed "The Community Public Land Partnership" to address economic and ecological problems with community resources. Effective partnerships take time and commitment to produce results: the Forest Service began the Economic Recovery program in FY 1992 with communities like Mancos, CO, and the communities developed Local Action Plans; the larger partnership with multiple counties grew from those relationships to develop a specific "Ponderosa Pine Forest Partnership: Ecology, Economy & Community"; and ecological restoration demonstrations and studies on the marketability of small ponderosa pine began in 1995

- **Local Action Plans** under the Economic Recovery program are a key to the Agency's efforts to help develop sustainable, vital communities. Such plans were in place in many forest-dependent communities in California, Oregon, and Washington prior to the implementation of the President's Economic Adjustment Initiative in the Pacific Northwest. Communities such as Oakridge, OR, the first community to receive a substantial grant under the Initiative, indicated that they would not have been able to compete for the major funding opportunities with other agencies if the Forest Service had not had its people working with them for the previous two to three years. Since the beginning of the multi-departmental community assistance effort of the Initiative, communities, state agencies, and other partners have expressed the value of the flexibilty of the Forest Service's authority to help communities fill in the gaps that can not be funded by other agencies.

- **Capacity building** in resource-dependent communities is a primary objective of the Forest Service's Economic Action Programs. The national strategy "Working Together for Rural America" set the tone for the Agency's efforts to increase the economic, environmental, and social vitality of rural communities. The actual plans and projects have been based on individual community/county needs and opportunities. For example, when the Economic Assistance Program started working with the community of North Fork, California, community members needed help facilitating meetings, developing and presenting proposals to the County Board of Supervisors, and creating networks within and outside the community. With assistance from the EAP, through various individual and community-wide efforts, community members developed skills and ideas, as well as a renewed sense of community pride and competence. Since program activities were initiated, North Fork has produced a plan for the community which includes design and infrastructure improvements, new community festivals and events, increased expansion and addition of small businesses, and strategic actions for developing the site of a former sawmill to meet community and industry needs or opportunities. The community now has people and groups who not only use their capacity for North Fork, but are frequently asked by other communities to help them deal with similar problems in the foothills of central California.

o **Technical assistance** to implement community-generated strategies is often cited as one of the unique and critical sources of help the Forest Service provides to communities. As more communities put their Local Action Plans in motion, the demand for technical assistance is growing at a rapid pace. Value-added and secondary-processing for wood products and the sustainable production or use of "special" (non-timber) products are good examples of economic diversification opportunities needing further technical assistance. Other examples of technical assistance in demand include: small community tourism planning, marketing expertise, feasibility studies, recycling, and agroforestry. Forest employees in the Rocky Mountain Region and the National Agroforestry Center have worked with the Winnebago Tribe to look at alternative uses of their land along the Missouri river. The Tribe is working to provide jobs for their people, manage the land in a way that is more compatible with their land ethic, and produce raw materials for traditional arts and crafts. Objectives are being met through partnerships with Iowa State University Department of Forestry, the Bureau of Indian Affairs, and others to provide a report on agroforestry systems and ideas for implementing effective strategies.

TIMBER SUPPLY PROBLEMS

061. Question: I have heard of several new problems that have come up this past year and they usually seem to involve birds. Please give us a run-down on the current situation of timber harvest in California and the california spotted owl management plan.

Answer: The scientific report on the California spotted owl, issued in

July 1992, identified significant concern over the rapid decline in key habitat elements for the owl, primarily large, old trees used for nesting and roosting and to some extent also for foraging. The report also stated: "... over-riding concerns for spotted owls in the Sierra Nevada conifer zone involve potential impacts of logging practices on their habitat...and the extent to which selective logging and aggressive fire suppression in this century has created incendiary conditions in a majority of the low- to mid-elevation confier forests." The scientists concluded that the management strategy in place at that time (i.e. a SOHA network) did not assure the long-term viability of the owl.

An interim strategy was adopted in 1993 in order to maintain options for ensuring owl viability pending development and adoption of a longer-term strategy. Without such a scientifically credible and legally defensible habitat management strategy, timber sales and other projects in Sierran national forests would have been subject to legal challenge and injunction, similar to what happened with the northern spotted owl and Mexican spotted owl.

The California Spotted Owl Environmental Imapct Statement (EIS) and Record of Decision (ROD), are scheduled for completion in the summer of 1996. The EIS decision will amend the Regional guide and the Land and Resource Management Plans for 10 National Forest in the Sierra Nevada. It will also replace the interim guidelines. Under the new direction, local managers will have more flexibility and more opportunities for economically viable timber sales, more opportunities for reducing fuels and wildfire threat to local communities, and be able to maintain habitat for owls and other species.

Alternatives in the EIS, address various options for dealing with fire, and for retaining and restoring key spotted owl habitat components including large trees, large snags, and large downed woody material. These components are vital to the wildlife and aquatic community as a whole, regardless of habitat conditions or forest age. Most alternatives also emphasize restoring and maintaining riparian productivity and water quality.

FY 1991 was the first year in which changes in spotted owl policy, as well as a definitive move away from clearcutting, affected timber sales in the Sierra Nevada. Timber sold for the ten Sierran national forests was 685 million board feet in 1991, 476 million in 1992, 616 million in 1993, and 363 million in 1994, for an annual average of 535 million board feet.

In FY 1995, the Pacific Southwest Region offered 544 million board feet of timber. This year, the Region expects to offer 604 million board feet. These volumes are lower than those in the past two decades. Several factors that are consistent with the Forest Service multiple use mandate have contributed to a reduction in lands available for timber harvest in the Region over the past two decades. These include management for outdoor recreation, water quality, visual quality, sensitive soils, wildlife and fish, withdrawals for wilderness designation, and a move away from clearcutting in response to ecological concerns and public demands.

062. Question: What has happened to cause the shut-down of the timber sale program in the Southwest?

Answer: Concern about a significant decrease in Mexican spotted owl (MSO) habitat and populations as well as a lack of adequate habitat management direction for the MSO in forest plans, were the key factors. These concerns led to the listing of the owl as a threatened species. Consultation with the Fish and Wildlife Service on activities in owl habitat were occurring on an aggregated project basis after the listing. The Forest Service and Fish and Wildlife Service also began working together on development of management guidelines to amend the existing forest plans. In August 1995, Judge Muecke disagreed with this approach and issued an injunction on all timber harvest activity on national forests in the Region, pending completion of consultation on the existing forest plans. The Region has nearly completed this consultation on the existing plans per the Judge's order, as well as on proposed amendments to the forest plans.

063. Question: Why didn't you anticipate that this problem with the Mexican spotted owl could happen?

Answer: We did anticipate this problem and were in the process of developing scientifically credible guidelines for use in amending forest plans. During the interim, we were consulting with the Fish and Wildlife Service on all projects involving Mexican spotted owl habitat. The court found, however, that we still needed to consult on the existing forest plans and issued an injunction on timber sales and other projects pending completion of that consultation. We are working with the Fish and Wildlife Service to complete consultation on the existing forest plans as expeditiously as possible.

064. Question: What efforts did you take to manage the situation so that either the Mexican Spotted owl did not need to be listed or that your timber program would be safe from legal interference.

Answer: Several years ago, the U.S. Department of the Interior, Fish and Wildlife Service (FWS) and the Forest Service perceived risks to the Mexican spotted owl (MSO) and it's habitat. The Forest Service manages most of the owl's habitat, which occurs in the Southwestern Region (Region 3) and in limited areas of region 2 and 4. The FWS proposed to list the MSO because of concerns that modification of suitable habitat would jeopardize the species. At the time, Forest Plans in the Southwestern Region (adopted in 1987), did not provide specific management protection for this habitat. The FWS concluded that continued use of even-aged management, as allowed by these Plans, would decrease suitable owl habitat by 50% over the next 100 years.

A significant effort was made by the Forest Service to address this situation. During 1991, the Forest Service and USFWS developed a Draft Mexican Owl Conservation Strategy. This proposed strategy would have permited the FS to use a wide range of management options for: (1) conserving the species and (2) allowing the FS to offer 250 million board feet timber.

In April of 1993, the Fish and Wildlife Service listed the Mexican spotted owl as a threatened species. Under listing, anticipated volume estimates were less than 100 MMBF. Prior to the current injunction, consultation required under the Endangered Species Act was completed on numerous timber sales and other activities involving the species habitat in Arizona and New Mexico.

065. Question: What will it take to get your timber program back on line in the Southwest? When will this occur?

Answer: Completion of the Mexican Spotted Owl Recovery Plan in late 1995, and the anticipated completion of required consultation on the existing and amended Forest Plans should terminate the current injunction. After this all efforts will be made to restart a timber program in the southwest.

066. Question: How many jobs are involved in timber harvesting and processing from NFS lands in AZ and NM?

Answer: Based on 1995 TSPIRS data, there were about 1,500 jobs, 800 direct and 700 indirect.

067. Question: What is the cost effectiveness of the timber program in Region 3? Provide a table covering the past 5 years showing costs for the timber program, receipts generated, jobs supported and timber produced.

Answer: The following information is derived from TSPIRS annual reports.

FISCAL YEAR	EXPENSES M $	REVENUES M $	JOBS 1000s	VOLUME OFFERED MMBF	VOLUME HARVESTED MMBF
1990	30,623	26,501	7.085	329	433
1991	30,831	20,962	5.470	279	344
1992	34,291	27,001	4.925	183	292
1993	37,903	21,760	3.377	149	217
1994	23,207	15,008	2.026	97	116

068. Question: To what extent is the timber program in the South and Southeast impacted by management for the red-cockaded woodpecker? Can you have both woodpeckers and timber harvest? How expensive is the special silviculture needed to harvest in red-cockaded woodpecker habitat.

Answer: The red-cockaded woodpecker (RCW) was listed as an endangered species in 1970. The RCW is not an old growth obligate, but does require older larger trees, preferably with heart rot, for cavity excavation. The RCW occurs primarily in longleaf pine ecosystems. These native systems historically covered between 60 and 90 million acres of the Southeast; today less than 4 million acres of longleaf pine ecosystems remain.

The 1985 red-cockaded woodpecker recovery plan identified 15 recovery populations, 12 of which are dependent on National Forest System lands. Sixty seven percent of Forest Service (FS) recovery populations were experiencing drastic population declines in the late 1980s. If this trend had continued, 8 recovery populations would have been extirpated before the year 2,000. The ecosystems occupied by the RCW are home to 177 threatened, endangered, or sensitive species including 31 listed species and 77 candidates for listing.

Fluctuations in timber volumes offered and associated values vary yearly from a combination of many different factors. It is not possible to attribute a specific volume or value to factors associated with managment for the RCW. Southern pine beetle outbreaks cause increased volume to be offered, and in any given year market conditions will strongly affect the values received.

Economic and social issues involving harvest levels and effects to local economies have generated substantive changes in the Final Environmental Impact Statement (FEIS) completed for the RCW. Senate Resolution 285 authored by Senator Lott of Mississippi raised specific concerns about this. Harvest volumes for the first 10-20 years are projected to decline. However, parts of the strategy will be phased-in over a 20 year period and local economic impacts will be minimized. Much of this decline is already present-the result of the reduction in the use of clearcutting as a primary harvest method (as adopted from the needs of addressing ecosystem function and health and the RCW Interim Guidelines).

Essentially both timber management and RCW management are compatible. In fact, recovery of the species is dependent on being able to manage the forests. The FEIS for the RCW details a recovery strategy based on ecosystem concepts and establishes RCW habitat management areas. Within these areas, a full range of vegetation treatments including timber harvest, from single-tree selection to thinning and clearcutting, are permitted. Controlled burning, based on natural fire cycles and intensities is is also needed as well as other management activities that are essential for improving or maintaining the suitability of the species habitat. Becasue the most limiting factor to RCW population restoration is availability of potential cavity trees, in some areas, harvest rotations or cutting cycles will be extended to allow for a natural supply of potential cavity trees. The longer proposed rotations will allow for development of larger trees, thus suitable nesting sites. Artificial cavity technology will also be used extensively over the next 20 to 30 years to allow for RCW population restoration.

The silvicultural methods used for managing RCW habitat are essentially the same as conventional silvicultural methods, although they are applied for different reasons. Mid-story removal (thinning) is one silvicultural method applied to colony sites. Although thinning can be intensive, it is applied to limited areas, and once favorable conditions are restored, less intensive methods can be used to maintain these conditions. Some of these efforts can be accomplished with Challenge Cost Share projects, through the Older American Program, as an add-on to other timber sales, or with force account.

069. Question: As you complete your next round of forest planning, are you finding that the standards and guidelines preferred by the managers are requiring riparian or soil protection so as to reduce the suitable land timber base?

Answer: We have just begun our next round of forest planning. In the last round of planning, standards and guidelines related to protection of riparian areas and sensitive soils did, somewhat, reduce the suitable land base. The precise amount of such reduction is uncertain, since we do not keep national data on unsuitable land by such categories. It is too early in forest plan revision process, on most forests, to know if any further reductions in the suitable timber base will result from riparian or soil protection concerns. These decisions are based on resource conditions, not on any pre-determined decision to reduce suitable timber land base. However, it is likely that a strong committment to riparian and soil protection will continue.

070. Question: Please let us know of any other problems that may be out there that we should know about regarding timber supply?

Answer: One of the most significant problems that has surfaced under ecosystem management relates to biomass buildups and consequent forest health and fire risk problems on the one hand, and the increased costs and reduced economic values associated with treatment of such areas on the other. These problems cannot be addressed unless more focus and a greater proportion of available funding is applied to them with the understanding that additional expenditures must be made and revenues foregone in the early stages. This will provide for healthier forests that are less susceptible to fire, insect and disease later. These forests can be then be sustained at significantly less cost than if we do not address these problems now.

TIMBER IN THE PIPELINE

071. Question: Partly because of all of these legal and supply problems, we have stressed the importance of having a full pipeline for timber sales. How much effort are you putting into building up the pipeline volume?

Answer: The Forest Service is making every effort to build pipeline volume, while still meeting the immediate priority of administering existing timber sale contracts, awarding new timber sale contracts, preparing current year timber sales and preparing future timber sales. All of these activities take time and effort, in addition to work related to producing out-year sales.

Many different factors effect the rate at which the pipeline volume is prepared. Delays can be related to court actions or changes in Forest Plan standards and guidelines. This may require re-working of current sales and completed pipeline sales to incorporate changes. This work must occur simultaneously with new sales, through the NEPA process.

Currently, each region is preparing pipeline volume at levels commensurate with the resources available to do so.

072. Question: What is the current pipeline volume right now? Will that volume be ready and available to help out in many regions if another one of your legal difficulties pops up? Give some indications of how pipeline volume varies by region.

Answer: As of April 27, 1996, NEPA analysis was completed on approximately 1.34 billion board feet of volume for fiscal years 1997 through 2001. Of this amount, field layout has been completed on approximately 7%, or 98 million board feet. Due to restrictions on the timing of harvest activities, much of this volume is not available for replacement of current sales.

Sometimes, reworking completed timber sale plans to meet new standards or provide additional resource analysis does contribute to losses in pipline volume. These activites can draw people and funding away from preparing new sales. We are doing everything possible to make the volume ready on schedule, within the context of environmentally sound designs.

Advanced Sale Preparation for Fiscal Years 1997 through 2001

Region	Gate 2 NEPA Complete	Gate 3 Field Layout
	(Volume in million board feet)	
1	121.3	10.3
2	35.8	5.0
3	21.9	4.3
4	85.6	29.8
5	39.9	3.4
6	77.0	2.9
8	349.7	21.2
9	421.6	21.1
10	187.0	0.0
Total	1,339.8	98.0

TIMBER THEFT

073. Question: You seem to get pretty regular press about timber theft being a big problem. What is going on here? How does the problem compare now with how it has been in the past?

Answer: Investigation of timber theft allegations is a top investigative priority of the Law Enforcement and Investigations Staff (LE&I). There is no evidence to indicate that more timber is being stolen today than historically, however, it is likely that increased law enforcement efforts are identifying and prosecuting these cases.

The Forest Service's ability to investigate and prosecute timber theft cases has continued to improve. For example, during FY 95, LE&I investigated a total of 222 cases as compared to 116 cases in FY 93. Of the 222 cases investigated, 76 cases were brought to final conclusion. This includes prosecution, civil settlements, or other dispositions.

074. Question: What about these allegations that you have obstructed investigations and prosecution of timber theft? What has happened to the timber theft task force? Given the size of the problem, why isn't this task force still needed?

Answer: Charges that the Forest Service obstructed timber theft investigations were investigated by the USDA Office of the Inspector General (OIG). The investigation concluded that there were no cases of obstruction or interference.

The Timber Theft Task Force was established in 1991 to operate in the states of California, Oregon, Washington, and Alaska. This group was established with a three year tenure. In FY 94 the straight line reporting structure for law enforcement was implemented. This resulted in all investigative and enforcement functions being able to operate independent of local line management. Based on implementation of the new straight line reporting structure and the fact that timber theft needed to be investigated throughout the United States; the decision was made to eliminate the task force at the end of it's tenure. This decision allowed the new law enforcement organization to incorporate timber theft investigations as an integral part of it's investigation program. The Law Enforcement and Investigations organization has established an excellent record in the investigation of timber theft.

BELOW COST TIMBER SALES

075. Question: How many below-cost timber sales did you have the past 2 years? What percent of timber sales are below-cost? How are you calculating timber sale costs these days, and how does this compare with the methods used 5 years ago?

Answer: The revenues and costs associated with national forest timber sales are not reported on a sale-by-sale basis, but rather on a programmatic basis for individual national forests. Accordingly, we cannot say how many sales failed to return revenues in excess of the costs required to prepare and administer them, we can only say how many national forests operated sale programs that failed to return revenues in excess of program-related costs -- and what proportion of total sales volume these forests accounted for. To be completely accurate, we can display such information for three distinct components of the overall timber sales program. These are:

> Timber Commodity Purpose Sales -- i.e., sales intended primarily to supply fiber to help meet the nation's demand for wood.
>
> Forest Stewardship Purpose Sales -- i.e., sales intended primarily to achieve nontimber management objectives requiring vegetative manipulation.
>
> Personal Use Purpose Sales -- i.e., sales intended primarily to provide firewood, Christmas trees, and other forest products to individuals for their own consumption.

The Timber Sale Program Annual Reports for FY's 1994 and 1995 show that -- for the "timber commodity purpose" component of the overall sales program, which is the portion of the program that the below-cost debate has centered on -- the following situation prevailed during the last two years:

Performance Indicator	Fiscal Year	
	1994	1995
Vol. Harvested for Timber Commodity Purposes (MMBF)	3,238	2,477
Percent Tot. Harv. in Timber Commodity Sales (pct.)	67	64
Number of Forests Below-Cost (no.) /1	36	36
Percent of Forests Below-Cost (pct.)	35	40
Volume Harvested off Below-Cost Forests (MMBF)	810	439
Percent of Vol. Harv. off Below-Cost Forests (pct.)	25	18

/1 Table only considers forests that had a timber commodity purpose harvest in excess of 1 MMBF.

Since FY 1989, the Forest Service has calculated timber-sale related revenues and costs using the Timber Sale Program Information Reporting System (TSPIRS). This accounting system was developed in cooperation with the General Accounting Office (GAO), and conforms to generally accepted accounting principles (GAAP). Periodically, the accounting coventions utilized in TSPIRS have been changed in response to recommendations made by either GAO or USDA's Office of Inspector General (OIG). When this has been done, TSPIRS' figures from prior years have always been restated to ensure comparability to the current figures.

PROFITABILITY OF STATE FORESTS

076. Question: I keep hearing that the States in many cases are doing a good job of forest management and in fact are more profitable than the Forest Service is at timber management. Which states have more profitable timber programs than the Forest Service?

Answer: There are no data sources that, from a national perspective, would allow us to identify those states that have timber sale programs that are more profitable than the sales programs of nearby national forests. There have been a small number of case studies that make this type of comparison for specific areas. One such study, entitled "Turning a Profit on Public Forests," by Donald R. Leal, was published in 1995. This investigation compared the profitability of: (1) the timber sales program of the State of Montana to that of the ten national forests located in Montana, and (2) the timber sales program of St. Louis County, Minnesota to that of the Superior National Forest. The principal conclusion was that in both of these cases, state and county forest managers were able to realize a profit from their timber sales while the Forest Service's sales programs resulted in losses.

Mr. Leal concludes that many factors were responsible for the observed differences in profitability, but that the most important was probably the following: -- that in both cases, the laws governing the management of the state and county lands stipulated that they were to be managed so as to provide a monetary return to taxpayers while there is no such direction for the national forests. He argues this difference is significant for two reasons. First, such direction gives taxpayers a vested interest in the economic performance of their publicly held forests, and provides them a legal basis for suing if the lands fail to yield a profit. Secondly, without such direction, Forest Service managers have no "bottom line" and lack an objective basis for assessing their performance.

While we disagree with Mr. Leal's assertion that Forest Service managers have no objective basis for evaluating their performance, we do concur with his basic conclusion that differences in governing legislation are largely responsible for the observed differences in profitability. In our judgment, however, the relevant differences in governing legislation go far beyond the fact that state and county lands may operate under a profit mandate while the national forests don't. They also include the following:

- differences in public involvement requirements;
- differences in contracting and purchasing requirements;
- differences in environmental analysis requirements;
- differences in administrative appeal and judicial review requirements;
- differences in the stand management objectives being pursued through timber sales; and finally

different public expectations for Federal lands, reflected in Federal legislation,

We do not believe that Mr. Leal's study, or any other investigation, provides any basis for concluding that state and county timber sales are more profitable than national forest sales because state and county personnel are more efficient than their Forest Service counterparts.

077. Question: Have you thought of having States manage some of your forest land as demonstration projects to evaluate cost saving mechanisms? What legislative changes would we need to make to try this?

Answer: The Forest Service and State forestry agencies from across the country have long cooperated with one another, primarily in the areas of fire control and providing assistance, both technical and economic, to nonindustrial private woodland owners. To the best of our knowledge, however, there has never been a serious proposal to have the states assume responsibility for managing national forest lands. From time-to-time various groups have suggested that, following the Canadian example, portions of the national forests be managed by private industry under some type of long-term leasing arrangement -- but this, too, has never actually been tried.

To the extent that state or private forest lands yield higher profits than comparable national forest lands, we feel these shortfalls are largely attributable to differences in the applicable laws and regulations, and not to inherent differences in efficiency. In other words, we believe that state or private forestry personnel would generate essentially the same net returns from national forest lands as Forest Service personnel if they had to operate under the same constraints. Professor Dennis C. LeMaster and others, in a 1985 study entitled "Long-Term Leasing of National Forest Lands," reached essentially this conclusion. They found that while long-term leasing might be profitable, before the federal government could reasonably expect to attract prospective bidders for such leases -- Congress would probably need to relax some of the legislative constraints that Forest Service managers now operate under. Finally, the Secretary of Agriculture would need legislative authority to allow a state or private entity to manage national forest lands.

STAFFING AND EXPERTISE IN FORESTRY

078. Question: We have been hearing that the Forest Service no longer has the forestry skills that it traditionally had or that it needs to respond to forest health and timber supply problems. What is your forest and silvicultural staffing now? How does this compare with what you had 5 years ago? Provide a table that shows the number of foresters, forestry technicans, and road engineers now and 5 years ago. Also provide entries showing what percentage of the total workforce this represents, as well as the ratio of employees per million board feet of timber offered for sale. Provide a national table as well as a table by region.

Answer: The following tables contain the total population of individuals in each of the series by region. Many of these individuals work in areas other than timber sales. Short of spending thousands of hours to look at individual positions there is no way to break out the individuals in the series that are paid from timber appropriations.

Comparison of Permanent Workforce (1991 to 1995)
Foresters 460, Forestry Techs. 462,
Engineers 802, Engineering Techs. 810

	Series							
	460		462		802		810	
	1991	1995	1991	1995	1991	1995	1991	1995
R-1	635	424	740	726	226	157	110	78
R-2	368	281	175	160	85	71	65	67
R-3	349	279	493	514	77	57	93	88
R-4	352	291	388	435	74	53	90	71
R-5	766	566	2064	1807	299	195	140	101
R-6	1060	699	2182	1640	624	299	271	162
R-8	689	543	984	746	141	128	121	97
R-9	441	331	521	426	121	82	83	67
R-10	144	142	74	70	62	57	51	38
TOTAL	4804	3556	7621	6574	1709	1099	1024	769

Total Forest Service permanent staffing: 1991- 34,154; 1995- 30,196

The timber offer level in 1991 was 9.5 billion board feet compared to 4.5 billion board feet in 1995. The ratio of employees (in these four job series) /MMBF is 1.596 and 2.667 in 1991 and 1995 respectively. The above figures represent the total population of foresters, engineers, and technicans in the agency. The skills and preofessional knowledge and experience of the Forest Service remains high. Many different resource professionals of the agency assist with the analysis, preparation and development of environmental documents, and monitoring needed to implement timber sales.

079. Question: Are you finding that you are short in skilled foresters in some regions of the country? If so, where? What are you doing about it?

Answer: Since 1991, the timber program level has decreased from 9.5 billion board feet to 4.5 billion board feet. Personnel and funding have been decreasing accordingly. All Regions have been affected by this reduction, with Regions 1, 2, 3, 4, 5, and 6 being the most affected. Regions 8 and 9 have had the least impact, with their programs remaining fairly stable. All Regions have been adjusting their organizations to reflect a lower program level by sharing services, creating zone organizations, creating teams, and combining resource programs.

The loss of certain skills is not uniform or consistent throughout the Regions. Although overall skill levels remain high among Forest Service professionals and technicians, skills which have been consistently lost are related to logging engineering, sale preparation, harvest administration and measurement skills. Retirements have reduced significant levels of experience in some areas. It is not surprising to have some situations arise where certain skills are in short supply in certain locations. We are continuing to respond to this by zoning employees across seperate units (such as ranger Districts and Forests), sharing resources among units, hiring temporary employees, and rehiring retired annuitants.

REFORESTATION

080. Question: How is your reforestation program doing? What new cost-saving methods have you employed?

Answer: Despite recent declines in regeneration harvesting on the national forests, reforestation programs remain a focus area. Ongoing efforts to reforest areas impacted by the 1994 wildfires continue to be a priority emphasis area. Reforestation needs have been declining steadily since the backlog was eliminated in 1985. Our most recent tabulation of reforestation needs reports 842,491 acres needing reforestation treatment as of October 1, 1995. This represents a two-year workload at present rates of treatment and a decline of approximately 6 percent from the needs level reported in the previous year (898,691 acres).

We continue to emphasize the need to reduce costs in our reforestation programs. You are already aware of our downsizing efforts at all administrative levels. In addition, last year, we completed a review of seven Forest Service nurseries in five western regions. Based upon the findings of this review, I have initiated efforts to close three of these facilities by the year 2000. These actions will help us reduce the costs in the years ahead by reducing the fixed costs of our nursery operations. I am confident the remaining facilities will allow us to mainitain a reliable source of high-quality tree seedlings for use in promptly reforesting areas where regeneration harvest or fires or other disturbance events trigger the need for treatment.

We are also utilizing natural regeneration methods to secure regeneration to a greater extent than was the case a decade ago. Through increased use of shelterwood and seed tree cutting methods on selected national forests, we are achieving our reforestation objectives within the timeframes called for under the National Forest Management Act of 1976 and at a lower cost than artificial methods involving the planting of seedlings grown in the nursery.

We are moving cautiously in the area of using more cost-effective means of controlling competing vegetation to ensure our reforestation objectives are met. Recent efforts on selected national forests in California, utilizing both hand and aerial application of herbicides to control competing vegetation, have resulted in significant contract cost savings to do this work. These cost savings can be significant at the project level, representing as much as a 75 percent reduction in the cost associated with using manual, labor intensive methods. Garnering public support for these programs is challenging due to public perceptions about the use of pesticides on public lands.

081. Question: What has become of the reforestation back-log that you used to have? To what do you attribute success here? Is it merely the

decline in your harvest that has allowed your planting to catch up with the back-log?

Answer: In 1972, Congress asked the Forest Service to assess the reforestation needs on the national forests. The Forest Service responded in 1974 with a report of the total reforestation needs on national forest lands. The 3.1 million acres of reforestation needs identified in this report became the initial reforestation "backlog" amount. The 1975 Congressional appropriations and the National Forest Management Act of 1976 included direction and funding to eliminate the reforestation backlog by 1985. The Forest Service reported to Congress in 1985 that the backlog had been eliminated and that remaining reforestation needs were capable of being handled on an annual basis. Of the 3.1 million acre reforestation backlog identified in 1974 a little over 1 million acres were planted and the remaining acres were eliminated through better than expected natural regeneration, improvement and updating of stocking standards for national forest lands, and changes in land use allocations making reforestation unnecessary.

The successful elimination of the backlog was due to the focus and emphasis placed on the problem by Congress and the Forest Service, and the funding that was appropriated specifically for the purpose of correcting the problem.

Reforestation needs as of October 1, 1995, are about 842,000 acres. This is about two years of work at current annual reforestation accomplishment levels. It usually takes about 2 years of lead time to prepare the site, grow seedlings that are adapted to specific sites that were logged or deforested by fire, insects, disease, or wind. That is why there will always be about a 2 year balance of reforestation work shown as reforestation needs. Temporary reforestation backlogs may occur in the future if we have an exceptionally bad fire year or other catastrophic events that deforest large areas of national forest lands, as it will take a year or two to catch up in those situations.

The overall trend in reforestation needs has dropped steadily over the last several years due in part to the reduced timber harvest levels on the national forests. Improvement in tree planting methods, improved seedlings, and research and technology advancements in the field of reforestation have also reduced reforestation needs over the last several years.

082. Question: Over the years the Congress has been very generous to your tree improvement program. What have we bought? To what extent are the national forest lands now planted with super trees?

Answer: Funding appropriated by Congress over the years for the purpose of tree improvement and genetic resource management have resulted in major improvements in tree growth, tree vigor, tree and forest health, and knowledge of the genetic diversity found on national forest lands. Maintaining biodiversity on the national forests starts at the gene level and goes to the ecoregion level.

Because of the genetics and tree improvement funding provided by Congress over the past several years, every acre planted on the national forests is accoomplished with seedlings that have been grown from seed from known seed sources and adapted to do well on the specific sites where they are planted. Over 32 percent of the acres planted are planted with seedlings grown from genetically superior trees, "super trees", as you call them. The Forest Service has selected over 127,700 trees that exhibit superior growth, form, disease resistance, and adaptability traits. Seed is collected from these trees and used for producing seedlings to be planted on national forest lands. Seed orchards planted with seed from these superior trees cross to even further improve the desirable genetic traits of the trees.

Development of genetically improved trees that are resistant to diseases have also helped reestablish some species of trees that were nearly eliminated from national forests. Blister rust resistant white pine trees are an excellent example of how genetics and tree improvement efforts can bring back a very important species that was in trouble due to a disease introduced from outside the country.

083. Question: Are you having any problems with super trees?

Answer: We have not had any problems with our genetically improved stock, "super trees" to date, nor do we anticipate any problems at this time. The combination of genetically improved seedlings growing along with the natural regeneration (which is almost always present to some degree) increases the genetic variability and diversity in our planted stands.

TONGASS NATIONAL FOREST

084. Question: Over the years the Congress has put a lot of extra funding into the Tongass for pipeline volume. We now find that there is almost no volume in the pipeline. What has happened?

Answer: A recent GAO report 96-122R, Tongass National Forest Timber Volumes, p.11-12 displays what has happened to the volume that was prepared with the pipeline dollars given to Alaska in 1992-1994. Much of the volume is not available because of the need to redo, revise, or refine certain NEPA analyses and decisions due to changing conditions and new information.

The pipeline situation on the Tongass National Forest mirrors many other Forest Service regions. In an April 16, 1993 Timber Cost Efficiency Report, the Forest Service identified numerous factors that contributed to cost increases. Oversight for that report was provided by GAO. Those reasons include changing legal requirements, increased litigation and appeals, and new and revised regulations or policy related to forest plan standards and guidelines. These factors all contributed to reductions in the Tongass NF timber pipeline.

085. Question: Did some of this pipeline money get spent on various environmental studies that are actually part of the land management planning process and not directly related to producing pipeline volume?

Answer: A recent GAO report 96-122R, Tongass National Forest Timber Volumes, concluded that the funds were used to prepare environmental documents for additional pipeline timber volume. GAO did not find any instance where these funds were used for land management planning.

086. Question: How much have you spent on the Tongass forest planning process the past 5 years? How much of this is from NFS and how much from Research branch accounts?

Answer:

NFS contributions:

FY 96	2,200,000	(Planned)
FY 95	2,169,300	
FY 94	965,100	
FY 93	1,156,100	
FY 92	1,125,700	
FY 91	1,475,500	
Total	9,091,700	

A partnership was developed in 1994 between the Alaska Region and the Pacific Northwest Research Station to help bring science to bear on the Tongass Land Management planning issues.

The Pacific Northwest Station has spent:

FY 96	$450,000	(Planned)
FY 95	324,769	
FY 94	0	
FY 93	0	
FY 92	0	
FY 91	0	
Total	774,769	

Grand Grand 9,866,469

087. Question: What has been the economic impact of closing the mills at Sitka and Wrangell?

Answer: In Sitka: Alaska Pulp Corporation (APC) was Sitka's largest employer accounting for 10% of total employment and 17% of total income. Approximately 400 jobs and $19 million in payrolls were lost as a result of the mill closure. Sitka has a diverse economy. Other major sectors include health care, fishing and seafood processing, government, education, and tourism.

Sitka has not yet felt the full impact of the mill closure because 1) APC gave employees large severance packages; 2) APC agreed to pay property taxes for 3 years after the mill closure; and 3) pent up demand from a prolonged housing shortage in Sitka buffered the real estate market.

The pulp mill accounted for more than 25% of Sitka's electric utility and municipal water revenues and 20% of the assessed property value. In total, APC accounted for over $2 million in direct revenue to the city.

In Wrangell:Wrangell has a population of 2,479. The sawmill (owned by APC) was the city's largest employer, accounting for 22% of total employment and 30% of total income. Approximately 230 jobs and $10 million in payrolls were lost as a result of the sawmill closure. Absent the sawmill, the economy of Wrangell is limited to fishing, fish processing, and tourism--all which are highly seasonal. Average annual employment in Wrangell is currently estimated at 813.

The FY 1996 Omnibus Consolidated Rescissions and Appropriations Act of 1996 (H.R. 3019) included a provision related to management of the Tongass National Forest (Section 325). As a result of President Clinton's determination to suspend subsections 325(a) and 325(b), a fund containing $110 million was created to provide economic assistance to communities in southeast Alaska.

088. Question: What would be the economic impact on direct and indirect timber industry jobs, compared with 1990, of moving to a total timber sale program of 300 million board feet, including utility? Similarly, how many jobs would we expect if the timber harvest level were, say, 450 million board feet?

Answer: In 1990, timber harvest from the Tongass National Forest was 471 million board feet (MMBF), sawlog plus utility volume, the highest it had been since 1980. Harvest from State and private land in Southeast Alaska was 518.2 MMBF, which was also unusually high. Consequently, total direct and indirect employment in Southeast Alaska due to the timber industry was higher in 1990 (6,113 jobs) than any other year from 1981 to 1995.

We expect State and private harvest to average only 121 MMBF over the next 10 years, which lowers total timber-related employment by approximately 2,102 jobs, compared to 1990 levels. Given that assumption, we expect a timber harvest level from the Tongass of 300 MMBF, when coupled with a State and private harvest of 121 MMBF, to result in a total timber-related employment of approximately 2,787 jobs (using the same multiplier of 1.725 to calculate indirect jobs as was used for 1990).

If State and private harvest levels could be maintained at 1990 levels, a Tongass timber program of 300 MMBF annually would support approximately 4,889 jobs due to the timber industry in Southeast Alaska. If 450 MMBF were harvested annually from the Tongass, we expect that total timber-related employment would be approximately 3,860 jobs assuming a State and private harvest level of 121 MMBF annually. If State and private harvest could be maintained at 1990 levels, a Tongass harvest level of 450 MMBF would support a total of approximately 5,962 jobs related to the timber industry.

ESTIMATED TOTAL DIRECT AND INDIRECT EMPLOYMENT IN SE ALASKA RELATED TO THE TIMBER INDUSTRY

	Tongass Harvest 300 MMBF/year	Tongass Harvest 450 MMBF/year	Tongass Harvest 471 MMBF (1990)
State & Private Harvest 121 MMBF/year	2,787	3,860	4,011
State & Private Harvest 518 MMBF(1990)	4,889	5,962	6,113

TIMBER SALES

089. Question: Of the timber sales released by section 2001(k) of Public Law 104-19, how many do you consider will cause significant environmental harm if they are harvested? How much timber volume is involved?

Answer: The information you requested is not currently available. In connection with the litigation over section 2001 (k) of P.L. 104-19, the Forest Service, Fish and Wildlife Service, and National Marine Fisheries Service are currently assessing the potential environmental harm of each timber sale cutting unit in sales subject to section 2001 (k). Once completed, we anticipate that the information will be used in conjunction with the court case and will not be immediately available to the public until the case is resolved.

090. Question: What has been your progress with the timber sales referenced in section 2001(d) of Public Law 104-19? How many timber sales, and with what volume, have been offered under this provision?

Answer: As of February 1, 1996, the Intergovernmental Advisory Committee reported the total FY 1996 National Forest volume offered to date at 91.2 mmbf. We do not have data on the number of sales associated with that volume. The committee also reported 142.9 mmbf harvested as of February 1. In FY 1995, the Forest Service offered 493 mmbf, sold 387 mmbf, and harvested 437 mmbf.

091. Question: I read in the newspaper this morning that yesterday the courts ruled that the timber sales that you have been holding need to be released. What is the impact of this ruling? How many sales, and how much volume is affected? When will you finally release this timber?

Answer: We assume you are talking about the Ninth Circuit Court of Appeals ruling that upheld the District Court's interpretation of the geographic scope of the sales covered by section 2001 (k). Because the Ninth Circuit had earlier denied our stay request associated with the District Court ruling, the Ninth Circuit ruling had little effect. All of the sales covered by the District Court ruling had already been released by the Forest Service.

WAR ON THE WEST, COMMUNITY RELATIONSHIPS

092. Question: I understand that the Forest Service has had a lot of trouble lately, especially in the interior west, with rural community relationships. What is wrong here? What can you do to improve your relationships?

Answer: Key to developing and strengthening relationships with rural communites are the Forest Service's efforts to implement the national strategy "Working Together for Rural America", which includes the assistance provided via the Economic Action Programs (Economic Recovery, Rural Development, and Forest Products Conservation & Recycling, to name a few). The strategy directs an agency-wide effort to build capacity in rural communities to address the changes and opportunities they face. Forest Service roles include convening broad-based, diverse groups of citizens and catalyzing local action.

Through the Economic Recovery program, Local Action Teams, which include Forest Service representation, have made advances on economic, social, and environmental goals by building higher levels of trust and increased use of collaborative processes. The Forest Service role as part of the Teams is to increase the capability of rural communities to:

- make informed decisions regarding natural resources and sustainable development;
- diversify their economies; and
- stimulate the development of competitive, environmentally responsible, forest-based enterprises.

The Economic Recovery program is the Forest Service's lead effort for changing the way the Agency views local-national relationships. Forest Service participation in Local Action Teams is frequently cited as the key to building new understanding and long-term relationships.

093. Question: Don't you feel that the strong arm of the federal bureaucracy has been overplayed in some instances and this results in animosity and antagonism against the agency and its personnel? Are you doing anything to relieve the anxiety levels in rural communities adjacent to the lands you manage?

Answer: The overall mission of the Forest Service includes direction to assist rural communities, particularly those communities most heavily dependent on natural resources. In recent years the agency's national strategy, "Working Together for Rural America" focuses attention on direct assistance to and long-term interactions with rural communities, rather than viewing rural development as a "by-product" of federal lands management. As a result, the Forest

Service is building trust and participating in community-based and community-led strategic planning and implementation processes.

Local problem solving and innovations, along with techncial assistance and "seed money" support from the Forest Service, is making a difference in rural America. Although the funding levels for the Economic Action Programs have stayed about the same since FY 1992, the number of communities assisted each year continues to grow. In FY 1992 Forest Service employees and partners provided assistance to about 240 rural communities; in FY 1995, over 1600 communities received assistance.

This is possible because the primary delivery of assistance is through National Forest System employees, who work with communities as part of their total job, thus making their efforts even more effective in addressing the anxieties and conflicts referred to in the above question. Secondly, the community-centered effort builds on many partners both within and outside the communities; these partners bring funds, technical assistance, in-kind services, marketing skills, etc. Another key factor is the ability of the communities to leverage Forest Service funds to match other grants, compete for special funds at the state or national level, or build credability with financial institutions which would not otherwise be willing to invest in the community.

This program is unable to keep up with the demand for this type of intensive, relationship-building assistance. As the agency downsizes, personnel working on these programs will probably decrease. Annual appropriations authority has been used since FY 1993 to assure employees can use any Forest Service appropriation for interaction with or techncial assistance to rural communities for the purpose of sustainable development.

094. Question: What are the current status of lawsuits brought by counties to retain control of management or access to Forest Service managed lands? What are you doing to work with these counties to assure them that you will manage the land with their best intentions in mind? What additional costs to management have been required because of these county relationships?

Answer: There have been no lawsuits brought by counties to gain control of management or access to Forest Service managed lands.

However, there have been six lawsuits filed which directly or indirectly challenge the legal theories upon which the County Supremacy Movement relies. Those suits are:

Boundary Backpackers v. Boundary County (Idaho) which was decided on March 18, 1996;
Washington Wilderness Coalition v. Walla Walla County which was dismissed on procedural grounds;
Gila Watch v. Catron County (New Mexico) which was dismissed on procedural grounds;
Hat Ranch v. Babbitt (New Mexico) which was dismissed on grounds that

this dispute was about land ownership, not grazing fees, and that the twelve year statute of limitations under the Quiet Title Act to challenge federal landownership had expired;
United States v. Nye County (Nevada) which was decided on March 14, 1996; and,
United States v. Gardner (Nevada) which was decided on October 2, 1995.

Of these six suits, the United States was the plaintiff in two (Nye County and Gardner), a defendant in one (Hat Ranch), an amicus in one (Boundary Backpackers), and not involved in two (Washington Wilderness Coalition and Gila Watch).

We are required under the provisions of several statutes to involve the public, including all levels of government, in the planning and management of the National Forest System. However, Forest Service officials are making a concerted effort to be more responsive to local communities. They are keeping in closer contact with local officials and enforcement authorities, and working with holders of permits to use and occupy NFS lands. To improve responsiveness and ensure agency coordination to actions involving the County Supremacy Movement, the Forest Service has a standing task force of Washington Office staff, complemented by a similar group in each of our Regional Offices.

Forest Service employees have participated in training, meetings, enforcement, protection, litigation, investigation, and other agency related duties, which were directly related to county supremacy issues. Although costs have been incurred, we have not kept records of the total agency commitment to this effort; thus, we cannot provide the Committee with an estimate of the costs involved.

SAFETY OF FS WORKERS IN FIELD

095. Question: Have there been additional bombings or other violent actions against the Forest Service?

Answer: The most significant events have occurred in Region 4 of the Forest Service, which encompasses Nevada, Utah, Southern Idaho and Western Wyoming. In March of 1995, a bomb was detonated at a District Office during non-duty hours and an outhouse was destroyed by a small bomb. In April, 1995, an employee was murdered by two escapees from a detention center. In August, 1995, a bomb was detonated at the residence of a District Ranger and destroyed a family vehicle and shots were fired at a fire engine crew. There have been several instances where employees have been threatened and bomb threats received involving facilities solely or jointly occupied by the Forest Service. In Region 3, which covers Arizona and New Mexico, a fire occurred from 2 pipe bombs in May of 1995. In January of 1996, a bomb exploded at a District Ranger office which resulted in $25,000 damage to the office. In Region 1, which covers Montana, Northern Idaho, North and South Dakota, an employee and his wife escaped serious injury when a large rock and brick were thrown through their front window. There have been incidents of intimidation and threats or bomb threats in every region except Alaska. Most of the activity has been in the Western States. As recently as April 7, 1996, incendiary devices have been found at Forest Service facilities.

096. Question: What are you doing to help field workers so their safety is assured? How is the morale in the field regarding safety and community relationships?

Answer: As directed by the President, after the Oklahoma City bombing, the Forest Service is conducting vulnerability assessments of its facilities. This includes a physical security survey and threat assessment. The Forest Service operates hundred's of facilities and is committed to make them as safe as possible for our employees. We still encourage employees to travel in pairs where they believe there is a risk to personal safety. Threats or intimidation of employees is immediately investigated for their protection. Even with the many difficulties presented by these challenges and carrying out the programs our employees are responsible for, morale and the desire to do a good job continues strong.

Also a Forest Service directive on Workplace Violence is currently in draft form and comments are being solicited from the field. Law Enforcement and Investigation Staff and Safety and Health are working together on this issue. The Safety and Health Branch participates on the USDA Workplace Violence Committee. A statement from the Secretary is forthcoming. A statement from the Chief is also being written and should be distributed within the next several weeks.

097. Question: Chief, as the leader for the agency, what are you doing to encourage your employees to work with citizens and reduce barriers that may lead to some of these problems?

Answer: To put it simply, I am asking our employees to do what we have always done; and indeed what we must continue to do to perform our mission. That is, continue to work closely with local citizens and leaders to assure sound management of National Forest land. I expect our District Rangers, Forest Supervisors and all employees to continue to be active, visible, and good neighbors to the public we serve. This attitude is nothing new. It is this service concept that has made the Forest Service strong public servants. The new variable in these troubling times is the need for our employees to be aware and alert for the warning signs that might mean "trouble" as they perform their duties.

DEMONSTRATIONS IN THE WOODS

098. Question: To what extent is the Forest Service having problems with unlawful demonstrations or gatherings on the forests that seek to stop lawful timber harvest or other management activities?

Answer: Protests and disruptive activities are ongoing, continuous and numerous at offices, field sites and timber sales. Most activities are taking place in the west. Management and monitoring of environmental protests and other unplanned incidents has stretched the limit of available law enforcement resources. The Forest Service's ability to successfully deal with these protests requires close cooperation primarily with local county sheriffs and other federal agencies to a lesser extent. The Forest Service has so far successfully managed these demonstrations. However, it can be expected that if more than 3 or 4 demonstrations occur concurrently with other major planned events (Olympics, Rainbow Family Gathering, etc), resources may be insufficient to meet demands. At the present time, Law Enforcement has been able to shift resources to assure timber harvest and other management activities continue to occur as planned.

099. Question: Where do you anticipate having problems this summer? Who are the leaders of these activities?

Answer: In addition to planned major events such as the Olympics and Rainbow Family gathering, it is expected that up to 50 major environmental protests will occur. Based on past actions, these demonstrations will occur primarily in the Pacific Northwest and this trend is expected to continue. Multiple arrests have occurred on timber sale areas on the Siskiyou and Willamette National Forests and more arrests are expected on the Willamette and in other sale areas in Oregon in the future. Timber sale protests have been organized by many different people and dispersed groups rather than through a few central leaders.

100. Question: Have these demonstrators caused harm to property or natural resources? Are there safety considerations or problems? What are you doing to discourage these demonstrations?

Answer: Some damage to resources has occurred. For example, on the Warner Creek Timber Sale area, demonstrators have built an "encampment," excavated roads, and disturbed the landscape. There are also safety considerations for employees which primarily center on making arrests, removing demonstrators from sale areas, and intervening in confrontations between environmentalists and timber operators. Some minimal injuries have occurred, however, serious injuries have been avoided so far.

MISSION OF THE FOREST SERVICE AND COURSE TO THE FUTURE

101. Question: You argue that your mission is guided by the principles of ecosystem management? I thought you were guided by a multiple use ethic. Chief, please define ecosystem management and describe how it differs from multiple use?

Answer: In relation to the National Forest System, ecosystem management is a concept of natural resources management wherein National Forest activities are considered within the context of economic, ecological, and social interactions within a defined area or region over both the short- and long-term. Multiple use activities are considered within the context of ecosystem management. Forests and rangelands can provide a broad range of sustainable uses, values, products and services to people. The Forest Service will provide these multiple benefits for people, within the capabilities of the ecosystems in which they occur.

102. Question: If ecosystem management is so similar to multiple use, why have you gone to the trouble of confusing the public by pushing this concept of ecosystem management?

Answer: We have "pushed this concept of ecosystem management" because it further refines our multiple-use management and it is the right thing to do. Also, we have numerous examples that indicate that the public is not confused. The Report of the Interagency Ecosystem Management Task Force (June 1995) has a number of quotes which I think demonstrate an understanding of ecosystem management principles by such folks as Bill Millar, Rancher and Board Member, Malpai Borderlands Group. Bill states "My definition of ecosystem management is really to be able to work across the fences with my neighbors and partners. My family has been here prior to statehood. Ecosystem management gives us a plan of land tenure where we can work through problems that in the past created animosity, and more importantly, thwarted our ability to do what's right for the land". Or, Bill Coates, Board of Supervisors, Plumas County, California who states "The most essential element of ecosystem management is community buy-in. Without this, local knowledge, talent, and political support are not available. In this age of hostility toward large government, many federal government ideas (some excellent) die due to public apathy. If the community believes the idea 'its own,' then marvelous things occur." These are just several examples that indicate people do understand the Ecosystem Management concept.

103. Question: Where does authority come from to adopt this ecosystem management philosophy? To what extent is this a set of ethical principles, practically a religion, or is it scientific management?

Answer: The roots of ecosystem management "draw from the Organic Act, Multiple Use-Sustained Yield Act, National Environmental Policy Act, and National Forest Management Act, and other laws; advances in science; and from the changing values and needs of the American people" (National Framework for Ecosystem Management). It is scientific management as evidenced by a 1995 assessment of the scientific basis for ecosystem management by the Ecological Society of America.

Ecosystem management proceeds from our statutory authority as set forth in statutes such as the Forest Service Organic Act, the Multiple-Use Sustained Yield Act, and the Endangered Species Act. These statutes invest in the Forest Service's broad discretion to rely upon our expertise to manage lands under our administrative authority in a manner deemed to best meet the purpose of Congress. One such purpose is to provide for the long-term sustainability of all of the forests' natural resources, including the species that inhabit them. Statutes such as the Forest and Rangeland Renewable Resources Planning Act and the National Forest Management Act outline various procedures to follow in federal public land planning, also authorize the use of principles intrinsic to ecosystem management. These acts specify that planning should be interdisciplinary, coordinated among agencies, and based on the best available science - all of which are ecosystem management principles. As a result, we feel that ecosystem management is firmly grounded in the authority reflected in statute as well as the best traditions of land stewardship.

104. Question: To what extent does your new philosophy still require the production of goods and products from the national forest system?

Answer: Goods and services will continue to be produced within the capabilities of ecosystems.

105. Question: What is your legal authority and mandate to provide for rural community stability by seeking to minimize harm to local economies that have evolved a dependence on the national forest system? Aren't a lot of communities hurting?

Answer: The National Forest-Dependent Rural communities Economic Diversification Act of 1990 (under the Rural Development Title XXIII (Subtitle G) of the Food, Agriculture, Commerce, and Trade Act of 1990 - otherwise known as the 1990 Farm Bill) directs the Forest Service to fulfill the following purposes:

(1) provide assistance to rural communities that are located in or near national forests and that are economically dependent upon forest resources or are likely to become economically disadvantaged by Federal or private sector land management practices;

(2) aid in diversifying such communities' economic bases; and

(3) improve the economic, social, and environmental well-being of rural America.

The Act is quite specific about which natural resource-dependent communities are eligible for this assistance in the Economic Recovery program; communities only associated with National Grasslands are not eligible under the law. Over 835 rural communities with community-based Local Action Teams were assisted under this authority in FY 1995. Field employees indicate the demand for technical and financial assistance from the Forest Service is well above the current capabilities of the program.

Nonmetropolitan (rural) counties are 72% of all counties in the U.S. About 70% (1,600) of these nonmetropolitan counties are highly dependent on natural resource-based earnings (15% or higher). Of those natural resource-dependent counties, over 1,300 are within 100 miles or less of a National Forest and are, therefore, eligible for assistance through the Economic Recovery program. Since the Economic Recovery program targets capacity building and diversification assistance to resource-dependent communities, not just counties, the number of potential recipients of Forest Service assistance can be conservatively estimated in the thousands.

The Economic Recovery program is the Forest Service's lead effort for changing the agency's approach to local-national relationships. Agency participation in community Action Teams builds trust in relationships and is frequently cited as the key to avoiding adversarial positions. In FY 1997, the Forest Service will continue to use this program to assist rural communities who are seeking ways to stimulate improvements in their economic, environmental, or social conditions, and to focus on helping rural communities capitalize on their potential to diversify and expand their economies through natural resource opportunities.

In addition to the 1990 Act, annual appropriations language for FY 1993 through FY 1996 has permitted the use of any Forest Service appropriations to interact with or provide technical assistance to rural communities for the purpose of sustainable community development. Without this authority, the bulk of the organization would be prohibited from providing essential help to natural resource-dependent rural communities.

ROLE OF SCIENCE AND SCIENTISTS IN MANAGEMENT

106. Question: You have made a big deal about the merits of bringing more science to bear on forest management. What are some of the pitfalls of relying on science or scientists to either solve forest management issues or make decisions affecting forest management?

Answer: Science is a process for acquiring and synthesizing knowledge and is an essential part of our management and policy decisionmaking process. We do not rely on scientists to recommend or make management decisions. If scientists were asked to recommend management or policy alternatives, it would both bias our science program and disrupt the more open and democratic decisionmaking process. As the Chief of the Forest Service has previously stated in Congressional testimony "...science...can describe options... and provide assessments of their consequences. But science simply will not, and cannot, give society "the answer"." Consequently, we limit the scientists' involvement in decisionmaking to collecting and interpreting technical information, projecting probable resource outcomes of management alternatives, and analyzing consequences of various outcomes.

107. Question: A feature article in the current (April, 1996) issue of the Journal of Forestry deals with the issue of using science to direct policy. The article warns of a series of potential problems. To what extent does the Forest Service rely on a diversity of scientific experts or do you primarily rely on your in-house expertise?

Answer: When seeking scientific input to decisionmaking processes, the Forest Service selects scientists on the basis of established technical expertise and credentials, not institutional affiliation. On most technical assessments, we engage Forest Service scientists as well as scientists from other agencies and institutions. For example, on the Forest Ecosystem Management Assessment Team we used researchers and technical authorities from the Forest Service, at least five other Federal agencies, and approximately ten universities. We seek to use the best science wherever it may be found.

108. Question: Why do you not use more external review or contracts for extra-mural scientific input?

Answer: Virtually all technical assessments are subjected to external peer review. In addition, we develop partnerships or contracts to engage extramural scientific talent subject to provisions of the Federal Advisory Committee Act.

109. Question: The article warns that if the same scientist names and faces keep popping up on issues around the country that there is a good chance that the individual scientists are becoming advocates and have left the scientific arena?

Answer: While there is always a chance that a scientist can become an advocate, the same scientist's name popping up on an issue is more likely to be reflective of that scientist's accepted expertise on the issue or technical area, rather than the assumption that the scientist is becoming an advocate. In the scientific arena, experience and peer/manager accepted expertise is a valuable commodity. The mere fact of being knowledgeable in a given technical area can give the perception of advocacy, but does not necessarily make it so.

Whether an individual scientist assists with one assessment or several, we expect our scientists to synthesize, analyze, and interpret technical information via the scientific method with as little bias as possible. They are not asked to make management decisions or recommend a policy position, only to provide the scientific and technical facts.

110. Question: Are some of the same scientists involved in one after another of your land management assessments?

Answer: Yes. We select scientists to serve on assessment teams based on the technical issues involved and the individual's experience and established technical expertise. To the extent that technical issues are recurring (e.g., population viability, aquatic habitat processes, watershed assessment procedures, etc.), an individual scientist may be asked to serve on more than one assessment activity because of his or her experience and peer accepted scientific and technical expertise. Whether an individual scientist assists with one assessment or several, our expectations are the same. Scientists are expected to synthesize, analyze, and interpret technical information via the scientific method. They are not asked to make management decisions or recommend a policy position, only to provide the scientific and technical facts.

111. Question: Do you think that some of these folks have an ax to grind on their issues and use their expertise to implement or encourage the implementation of certain environmental policies?

Answer: We recognize that scientists have opinions and biases like everyone else. We manage to limit the influence of potential biases by using only experienced scientists; established peer review procedures, insisting that scientists adhere to strict scientific protocols; and not asking scientists to make management decisions or recommendations.

RPA DRAFT PLAN STATUS

112. Question: What is the status of the draft Resources Planning Act (RPA) plan that you recently circulated? When will you put a final plan out?

Answer: The first 90-day comment period ended in January 1996. A second, 30-day comment period began on May 1, 1996. An analysis of comment letters was completed for the first 90-day comment period. A similar analysis will be completed for the second 30-day comment period that ends on May 31, 1996. We are in the process of reviewing the results of public and employee comment on the Draft RPA Program, along with other relevant information, in order to develop the Secretary's Recommended Program. After appropriate coordination within and outside of the Forest Service, the Secretary's Recommended Program and the President's Statement of Policy will be prepared. A summary of comments received during the 90- and 30-day comment periods will be prepared for publication and made available to organizations and individuals who have expressed an interest in the information. Finally, the Secretary has indicated that he will deliver the Recommended RPA Program to the 105th Congress in 1997.

113. Question: What was wrong with the plan that you decided to stop its release?

Answer: The "The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan" (Draft 1995 RPA Program) was published in draft so that the public and employees could review and comment on the substance of the plan. The Draft RPA Program was released in mid-October for that purpose. Based on comment letters received and other relevant information, the Draft RPA Program will be revised and updated following the conclusion of the second, 30-day comment period on May 31. The revised and updated plan will be released as the "Secretary's Recommended RPA Program" and will be available, along with the President's Statement of Policy, to the 105th Congress in 1997.

114. Question: I understand that the RPA includes an analysis suggesting that the Forest Service contribution to the gross domestic product in the year 2000 will be about $123.8 billion, including about $98 billion from recreation programs, about #13 billion from wildlife and fish programs, about $10 billion from minerals programs, and only about $3.5 billion from timber programs. What exactly is this analysis? Who did it? Is it correct? Will it stay in your final RPA plan?

Answer: The analysis is based on an input-output model for estimating the national job and income impacts of Forest Service programs. The Forest Service is required to display such effects in the RPA Program by the Resources Planning Act. A briefing paper follows that provides additional background and explanation of the procedures used in developing this analysis.

115. Question: How in the world did you come up with these figures?

Answer: The above briefing paper (referred to in question 114) provides a more detailed explanation of the procedures used in developing this analysis.

116. Question: What are the implications? Should we base our funding allocations on this kind of analysis?

Answer: The estimates of contributions to gross domestic product (GDP) provide useful information on the impact of Forest Service programs on the national economy. However, economic impacts are just one perspective to consider in evaluating Forest Service programs. Other relevant perspectives include local community impacts, economic efficiency, historic program development and support, and achievement of management goals such as forest health. Funding allocations are not based on a single perspective. National income and employment impacts alone do not provide a sufficient rationale on which to establish funding priorities, nor are they appropriate for estimating the effects of marginal changes in program funding.

DRAFT
ECONOMIC IMPACTS OF FOREST SERVICE PROGRAMS

The USDA Forest Service plays a significant role in managing forests and rangelands and producing resource outputs that provide a variety of goods and services for the American public. The economic effects of these goods and services can be described by several measures, each contributing unique information. The Draft RPA Program presents three measures of economic effects: 1) benefit-cost analysis; 2) returns to Treasury; and 3) employment and income impacts. The benefit-cost analysis compares the cost of Forest Service programs to the benefits generated by those programs. Returns to Treasury are receipts to the government from sales of outputs and fees for services on the National Forests and Grasslands. The employment and income effects are the subject of this paper.

The economic impacts resulting from Forest Service programs like timber, grazing, and recreation create ripple effects throughout the economy with measureable impacts at local, regional, and national scales. The economic impacts from Forest Service activities are often summarized as contributions to employment and income. At the national level, the most relevant measure of income is the contribution to Gross Domestic Product (GDP): the value added to the economy of domestic production of goods and services.

MODELING ECONOMIC IMPACTS

Forest Service estimates of the contributions to employment and GDP are developed using an input-output model of the national economy. Input-output models use a well-defined system of accounts to quantify the flow of commodities between industries in the economy. In short, industries within an economy buy from and sell products to each other, and household members (people) work for and buy from these industries. The basic input-output model tracks the production process from raw material inputs to production of final goods and services. In effect, the input-output model is a snapshot of the economic interrelationships of our national economy.

The Impact Analysis for Planning (IMPLAN) model has been the standard USDA Forest Service input-output analysis tool since 1979. It combines a system of economic accounts with tools for economic analysis and forecasting. IMPLAN is valuable as a descriptive tool to explore and understand the current economic interrelationships in local or regional economies. As an analysis tool, IMPLAN is used to estimate economic impacts, such as those associated with major policy initiatives at regional and national levels.

IMPLAN has broad technical credibility across Agency and institutional boundaries for a variety of applications. The Federal Emergency Management Agency uses IMPLAN to evaluate alternative strategies following disasters. IMPLAN provides estimates of regional economic impacts of recreational use at reservoirs and river systems for the Corps of Engineers. Other applications include the evaluation of structural changes in the economy, the evaluation of import and export relationships for trade studies, and the development of international models.

IMPLAN can be used to capture the cumulative effects of economic activity stimulated by Forest Service programs. These cumulative effects are composed of direct, indirect and induced effects. The direct effects capture the initial economic stimulus on the original industry in response to a Forest Service action (e.g., sawmill production stimulated by stumpage sale). Indirect effects account for additional production by supplying industries responding to the input needs of the original industry (e.g., sawmill purchases of additional fuel, trucks, equipment). Induced effects capture the increased spending level of households from increases in employment (e.g., purchases by new workers hired at sawmills and supplying industries). In summary, the economic impacts of a Forest Service action becomes the sum of the effects on the original industry plus the effects on supplying industries and wage earners as the economic stimulus ripples through the economy. IMPLAN's value as an analytic tool stems from the calculation of a multiplier that represents the accumulated total of multiple rounds of indirect and induced effects flowing throughout the economy. Once the direct effects of a program change are determined, IMPLAN is used to calculate the indirect and induced effects.

Most input-output models, including IMPLAN, account for the economic linkages moving backwards or downstream through the economy. Backward linkages occur when an industry purchases inputs for its own use. For example, a sawmill purchases electricity, tools, and other equipment in the production of lumber. Another economic linkage is forward processing which reflects sales of one industry's output to another industry. Forward processing occurs when the Forest Service sells stumpage as an input to the production of lumber at sawmills. Forward linkages are important to resource management agencies, since most of the resource outputs are primarily inputs to another stage of production. The direct effects from forward processing of resource outputs are evaluated before IMPLAN can calculate the indirect and induced effects from the backward linkages.

ECONOMIC IMPACTS IN THE DRAFT RPA PROGRAM

The contribution of the Forest Service to national GDP reflects one measure of the role the Agency plays in the national economy. Through its resource outputs and programs, the Forest Service generates significant economic activity, directly and indirectly, that ripples through the economy supporting a variety of industries, including the manufacturing and service sectors. The economic impacts displayed for the different program areas reflect the relative contribution to the total from activities associated with each program.

For the Draft RPA Program, IMPLAN was used to provide estimates of the Forest Service contribution to national GDP and employment based on the strategic direction presented in the Program. Total national economic impacts (direct indirect, and induced) from Forest Service programs were evaluated for the years 2000 and 2045 based on the program costs and outputs projected in the Draft Program database (Appendix E-2). Forest Service programs stimulate economic impacts from three components of Agency activities: 1) production of resource outputs; 2) Agency direct expenditures, and 3) uses of program receipts.

The largest share of economic impacts linked to Forest Service program activities stems from the production of resource outputs from national forests and grasslands. Recreation use, timber production, grazing, mining, and wildlife and fish use all stimulate economic impacts as primary inputs to the production of a variety of goods and services in the economy. How the particular resource outputs feed into the economy determine the private sector response and the magnitude and nature of the direct, indirect, and induced effects.

Administration of all Forest Service programs requires expenditures of funds for employee salaries and benefits and for goods and services used in Agency operations. Employee purchases of goods and services from salaries generate economic effects in local communities. Our estimates of these effects are based on a standard profile of household expenditures. The Agency also produces private sector economic effects from purchases of goods and services associated with standard day-to-day operations. For research, state and private forestry, international forestry, and other programs not linked directly to production of resource outputs, the only economic effects currently included in the Draft RPA Program analysis are from direct Agency expenditures.

Through institutional agreements with states and local governments, the Forest Service contributes a share (payments to states) of its annual collection of receipts. As these revenues are spent in the local community, often on education and roads, economic effects are realized in affected areas. In the Draft RPA Program, the economic effects from payments to states are evaluated as one aggregated total across all Forest Service programs generating revenue.

While the primary purpose of performing impact analysis for the RPA Program is to evaluate the overall effects and/or role the Forest Service plays in the national economy, it is also important to identify the effects associated with different program areas. As mentioned earlier, the majority of economic effects from Forest Service programs stem from production of resource outputs (recreation use, timber production, mining, grazing, and wildlife & fish use). Many of these outputs are used as raw inputs (forward processing) to production of goods and services in local communities surrounding national forests and in the nation as a whole. In developing the economic effects that stem from resource outputs, a concerted effort is made to evaluate each program in a consistent and comparable manner. The accounting stance adopted to insure comparability identifies where a particular Forest Service output is in the production process and the role that output plays.

In general, the Forest Service only claims economic effects from production of a particular good, when the Forest Service output is overwhelmingly important as an input to production of the good. Recreation and timber offer good examples to compare how distinctly different types of resource outputs are treated when defining their proper place in a particular production process. In the case of recreation, the Forest Service manages the recreation setting and considers that component to be the most significant or important input to production of recreation experiences. The production process of generating recreation experiences includes inputs from the recreation user in the form of trip-related expenditures and on-site expenses in the vicinity of the recreation site. Expenditures on durable goods, such as 4-wheel drive vehicles and camping trailers, are excluded because they are usually purchased off-site and their value cannot be attributed solely to a particular Forest Service recreation trip. Since the recreation experience is considered the final economic product, there is no forward processing to other goods and services. The economic impacts only include the effects of backward linkages stemming from the trip-related expenditures.

For timber, the raw log is the primary input to production of lumber at the sawmill. The economic effects include the value of all the products from the sawmill, the value associated with harvest activities, and the economic impacts stimulated through all the backward linkages in the economy. As the sawmill products move forward in the economy as inputs to other products, the importance and magnitude of the Forest Service contribution (raw log) diminishes. For the production of furniture, the value of the wood has already been included from the milling process, so other inputs such as design, glue, nails, and labor become the dominant inputs at that stage of production. The overall economic impacts from timber production include the direct contribution to the economy of forward processing to sawmills and all the subsequent indirect and induced effects that ripple through the economy.

As displayed in the Draft RPA Program, the national contributions to GDP from recreation are substantially larger than contributions from other resource areas. This difference is explained by several factors. The first factor is the sheer magnitude of recreation use on the national forests and grasslands. Second, recreation visitors are purchasing final consumption products (fishing equipment, clothes, etc.) as part of the recreation trip expenditures. These products require inputs from a large number of intermediate producers and exhibit extensive national economic linkages throughout the economy. By contrast, total timber GDP effects tend to be smaller than the recreation effects since the Forest Service contribution in the production stream ends at an intermediate stage. There is a less extensive network of linkages for intermediate products than is observed for final products, such as recreation. The greater the number of linkages, the more extensive the economic effects.

In regard to implications of this analysis, we believe the total national employment and income effects and the distribution of those affects among Forest Service programs provides valuable information about the relationship between the Forest Service and the national economy. However, economic impacts are just one perspective and there are many other valid perspectives and sources of information that should also be considered in evaluating Forest Service programs. These include the social and economic impacts to local communities, revenues generated, economic efficiency, historical program development and support, and actions needed to achieve desired conditions or to address urgent problems, such as forest health. Funding allocations are not based on a single dominant perspective or factor. Such decisions take into account all of the factors mentioned above, plus many more. Income and employment impacts alone do not provice a sufficient rationale on which to establish funding priorities.

We continue to evaluate the national economic effects of Forest Service programs and will analyze the economic effects of the Secretary's Recommended Program when it is developed. While we expect some changes in the absolute numbers, we do not anticipate a change in the overall relationships between and among Forest Service programs. Recreation use effects will continue to dominate the employment and income effects.

WILDFIRE MANAGEMENT

117. Question: We have had some pretty awful wildfire years in recent memory. How well will you be equipped to fight fire this year with the FY 1996 firefighting funding?

Answer: In many areas of the West, the 1996 fire season is projected to be more severe than in 1995. Early fire activity in Texas and the Southwest has already resulted in large burned acreages and loss of property on private lands. Weather patterns have brought much drier conditions in the Southwest. Heavy and continuous forest fuels resulting from insects and diseases attacking overstocked and drought stressed forests pose a threat to safe and effective fire suppression operations.

Severity funding is available for areas having above normal fire conditions. Early planning efforts, interagency cooperation and severity funding will permit timely responses to emerging emergency situations.

To meet expected fire suppression funding needs above that available in the FY 1996 budget, the Administration has released the $100 million remaining in the Emergency Contingency Fund. These funds will be available this fire season. In addition, the agency will probably have to borrow funds from other internal accounts, most likely the Cooperative Work Knutson-Vandenberg (K-V) account.

118. Question: Are you asking for sufficient funds to fight fires in FY 1997? Do you anticipate needing to come back to the Congress to ask for supplemental funding?

Answer: The proposed FY 1997 budget provides adequate funding for fuels management ($24.5 million) and presuppression activities ($272.8 million). This request represents 80% of the Most Efficient Level (MEL) projected by the National Fire Management Analysis System (NFMAS). A variety of actions will be used to ensure local or Regional fire protection capability is adequate, including the $88.2 million for fire suppression activities provided in the FY 1997 budget. Based on the 10-year average (FY 1986-95) expenditure for fire suppression ($296.4 million), an additional $208.2 million would be required to meet fire suppression needs and for the emergency rehabilitation of severely burned National Forest System lands.

It is probable that we will need to borrow additional funds from other Forest Service accounts, such as the K-V fund, to meet the anticipated fire suppression needs. We have requested a supplemental appropriation to repay funds advanced from the K-V fund to date. It is currently under review within the Executive Branch.

119. Question: You have stated that fire is one of your priorities. It certainly is to the American public. If this is a priority, why are you not asking for increased funding as the BLM did this year? What is different about your funding situation from the BLM?

Answer: The FY 1997 budget request for the Forest Service was designed to achieve long-term goals and provide strategic direction by focusing dollars and people on the following components of sustainable forest management: Science: The Foundation of Natural Resource Management, Forest Health, Restoring Deteriorated Ecosystems, and Ecologically Sustainable Production of Goods and Services. This direction positions the Forest Service to better accomplish the agency's mission and strategic long-term goals in the most efficient manner. Wildland Fire Management is, of course, a priority program for the Forest Service, and as you suggest, a priority to the American public. However, in developing the FY 1997 budget request, we considered the need to also fund many other programs that the American public consider to be of high priority.

120. Question: Following the extremely costly 1994 fire season, several reports were published with recommendations that could result in reducing fire suppression expenditures. Can implementation of these recommendations make up for the shortfall in the suppression account?

Answer: No, the recommendations would not make up the shortfall. The primary causes for the high cost of the 1994 fire season were the greater susceptibility of forest to drought and insect/disease epidemics and the associated build-up of highly flammable fuels, the length and severity of the season, and the increasing numbers of people moving from the more urban areas into the rural and forested areas. These three factors were the primary cause of high suppression costs. Many of the recommendations following the 1994 season have been implemented, including a comprehensive review of wildland fire policy commissioned by the Secretaries of Agriculture and the Interior.

While many of the recommendations will either reduce costs or limit future increases, the conditions in on National Forests, and on private or state protected land adjacent to the forests, increase the potential for high cost fires. If similar weather patterns again result in an early start to the season and extreme burning conditions that extend well past the expected end of the season, we anticipate future costs will again be high.

121. Question: Provide a table showing the costs of the fire program over the past ten years?

Answer: Fire Program Costs over past 10 years:

Fiscal Year	Million dollars
1986	$266.7
1987	$447.4
1988	$687.8
1989	$536.7
1990	$427.6
1991	$301.8
1992	$472.9
1993	$357.3

1994	$939.7
1995	$509.5

122. Question: What has been the fire fighting costs for the past 10 years? Why is your suppression request so far below the 10 year average?

Answer: Fire Fighting Costs for the past 10 years:

Fiscal Year	Million dollar
1986	$115.0
1987	$288.0
1988	$522.8
1989	$370.1
1990	$249.5
1991	$121.9
1992	$285.4
1993	$109.4
1994	$678.0
1995	$224.3

The FY 1997 Budget includes $88.2 million for fire suppression activities. This is below the 10-year average (FY 86-95) fire suppression expenditure of $296.4 million. The Administration's budget proposal for Wildland Fire Management is formulated to balance different areas of necessary Forest Service work, and is based on the priority of Wildland Fire Management among all discretionary programs. Within the President's budget, a higher funding level for this program area would have required an offset by providing considerably lower funding for other Forest Service activities.

123. Question: In the past you have borrowed heavily from the KV fund to support emergency firefighting costs. When will you be able to pay the KV fund back?

Answer: In FY 1995, we repaid $350 million, the amount borrowed under the current Administration as of that time. Current limitations on discretionary spending have made it difficult for either the Executive Branch or the Congress to effect a repayment of the KV advances. The matter is under consideration within the the Administration, and no doubt, within the Congress as well.

124. Question: What would be the implications of not paying the KV fund back in a timely manner?

Answer: The implications of not repaying the KV fund in a timely manner are directly related to the severity of the fire season and the need to advance funds from the KV account to the emergency firefighting account. A number of assumptions must be made to estimate the implications. Assuming an average fire season in 1996 and 1997 of $272 million per year, and assuming $90 million is appropriated in FY 1996 and FY 1997 for emergency fire suppression, it is anticipated that the KV fund could have a negative cash balance of

$15 million at the end of FY 1997. In this case, beginning in FY 1998 the KV program would be entirely dependent on FY 1998 anticipated collections. Such hand-to-mouth financing of KV work is impractical since receipts are collected at the time of timber harvest which is concentrated in the late spring and summer months. This is also the time that much of the KV work is accomplished.

Assuming that $90 million will be appropriated in FY 1998 for emergency fire suppression, and assuming an average fire season cost of $272 million in 1998, and assuming that K-V borrowings are not repaid, the Forest Service would be without a ready source of funds to advance for fire suppression.

URBAN AND RURAL FIRE INTERFACE

125. Question: Are there particular problems now that more and more Americans are moving to locations near or within national forest boundaries?

Answer: Particular problems do arise as more Americans move to locations near or within National Forest boundaries, particularly in urban interface areas. Protection of human lives and property take precedence over protection of the natural resource, and fire protection and suppression strategies must respond accordingly. Wildland fire prevention and suppression costs increase, fuel management project costs increase, and specialized training and equipment costs are incurred.

126. Question: To what extent do you have demographic analyses available that summarize population movement to areas near NFS lands? What are the implications of this movement of population to counties and cities near the national forests?

Answer: The Forest Service has not conducted general demographic analyses that summarize population movement to areas near NFS lands. However, through the Forest Planning process we know that more areas are identifying urban interface issues as significant ones, particularly with respect to fire management activities. Additional implications are greater overall demands for goods and services generated on NFS lands, increased possibility of human caused fire, greater interest in and scrutiny of Forest Service decisions, greater random access to forest lands and potential resource conflicts, encroachment, and the need for new and different outreach activities.

127. Question: What extra fire fighting costs, both presuppression, and suppression, do you face now that more and more homes are so near national forests or within wooded areas?

Answer: The extra presuppression and suppression costs that are faced as more homes are located near or adjacent to wooded or grassland areas are prevention costs, fuel management project costs, and increased suppression capability costs. Prevention costs include the production of public messages through various forms, and public/media contacts. Part of the new message is how homeowners can protect life and property from wildfire.

Fuel management projects include reducing wildland fuels so that wildfires will not spread to sensitive areas. This includes prescribed burning, mechanical treatment of fuels, and removal of excess live trees and brush. More suppression forces are needed to protect homes and property in wildland environments. They also need specialized training and equipment to accomplish different firefighting methods safely.

128. Question: What new fire policy are you working on with other federal partners? Will this result in savings? How are you planning to change national fire fighting policy?

Answer: In response to the challenge of the 1994 fire season, the Secretaries of Agriculture and the Interior chartered a federal Wildland Fire Management Policy and Program Review to ensure that federal policies are uniform and programs are cooperative and cohesive. The final report was issued in December 1995. This common set of policies will enhance effective and efficient operations across administrative boundaries.

The primary subject areas covered in the Review were firefighter safety, the role of fire as an ecological tool, sound risk management, fire planning, and interagency coordination. The overall outcome of the Review will be to increase the quality and consistency of federal wildland fire management which is also anticipated to result in cost savings in the long run. In the short term, the recommendations for increasing fuel management activities will require additional funding but will result in reduced long term fire suppression expenditures.

CO-OP FIRE PROGRAM

129. Question: The cooperative fire management program is proposed for funding at $17 million for FY 1997. This money is distributed to the States for fire management activities. What is the connection to the Forest Service wildland fire management program?

Answer: The $17,000,000 in the President's budget provides States with assistance in developing and maintaining aggressive fire control and initial attack capabilities. This enhances their ability to prevent, detect, and suppress fires before they spread to adjacent federal lands. This money is also used to ensure that the states are full participants in federal wildland fire management groups such as the National Wildfire Coordinating Group. Coordination with, and enhancement of, State firefighting abilities has a significant effect on the cost and safety of overall national firefighting efforts. A major focus of the Cooperative Fire Management program is to address wildland fire management in the wildland and urban interface areas.

Certain Forest Service projects are also funded from this budget, including the Smokey Bear fire prevention program which benefits local, State and federal users. Management of the Federal Excess Personal Property program, which loaned $189 million worth of excess military property from the Forest Service to State and local fire departments for firefighting purposes in 1995, is also funded.

130. Question: What benefit to the federal government comes from this cooperative effort?

Answer: The Cooperative Fire Management program provides benefit to local, State and federal agencies and extends the capability to prevent and suppress fires nationwide. In addition to enhancing the protection and suppression of wildfires in areas adjacent to national forests and grasslands, the funding is used to provide training and equipment so that State and local resources can meet national standards and can be utilized in the national fire fighting effort. In 1994 for example, during the peak of the season, the states had provided 147 20-person fire crews, 296 engines, 26 aircraft, and 2,136 overhead personnel toward national efforts. Many of these were trained, equipped, and available due to the funding provided under the Cooperative Fire Management Program.

In addition to the support provided by the States to the federal suppression effort, the program also lessens the need for federal resources to respond to fires that spread onto the National Forests and other federal lands, or, for federal assistance to fires on State lands where the federal agencies have a cooperative suppression agreement. By maintaining an effective State and local suppression force, the reliance on federal resources decreases, and the federal agencies are better able to respond to fires on federal lands.

FIRE, PRESCRIBED BURNS AND FOREST HEALTH

131. Question: With all of our concerns about forest health, it seems that fire presuppression activities play a major role in setting a course to fixing past problems. Please explain the role between fire and forest health.

Answer: Fire is an agent of change. The effect of wildland fire, or its exclusion, has a profound influence on the composition, structure, and function of ecosystems. The most critical effect of fire exclusion occurs when vegetative patterns and composition change due to the buildup of live and dead forest fuel. The dead fuel buildup occurs when changes in species composition and stand structure predispose areas to insect attack, disease outbreaks, drought susceptibility, and severe wildfires. Increased insect and disease occurrence leads to greater needs in pest prevention and suppression and increased damage to forest stands.

132. Question: Do you think that you have requested enough funds to conduct prescribed burns needed to help turn the forest health situation around?

Answer: The FY 1997 budget proposes $24.5 million dollars in fuels management, to treat 750,000 acres to help restore forest stands to healthy conditions. The strategy to accomplish our goals in forest health is long term in nature. It took us close to 100 years to get to the current situation, and it will not be entirely reversed in one year. Based on initial estimates, our recommendation is to increase fuel treatment to 3,000,000 acres per year by the year 2005. The FY 1997 budget puts us on track to meet that goal.

133. Question: What is the funding level required to implement the fire management plans currently in force on the national forests and grasslands?

Answer: There are two types of fire management plans; presuppression or preparedness plans that provide for the initial attack and large fire suppression organizations, and fuel management plans which include prescribed burning and mechanical treatments of wildland fuels. The funding level for presuppression plans is determined using the National Fire Management Analysis System to estimate the most economically efficient level (MEL) for the fire presuppression program. NFMAS estimates fire suppression costs and net changes in resource values that are likely to occur as a result of various levels of funding for the presuppression program, based on the assumption that fire suppression costs are influenced by our prevention, detection, and initial attack capability. The analysis identifies the most efficient presuppression budget (MEL), which is one that will result in the lowest program cost over time. For FY 1997 the MEL is $341 million. Due to competing priorities for funds in the Forest Service budget, Presuppression was funded at 80% of MEL in FY 1996 and the President's Budget proposes 80% funding of MEL in FY 1997.

Funding levels for the fuel management plans are determined by Forest plans and current estimates on the need for returning fire to the ecosystem at 3,000,000 acres per year by the year 2005. The estimated funding level for this level of fuels management is $150 million.

134. Question: How much of the desired prescribed burns and presuppression activities will be funded? What is the impact of not doing this additional prescribed burning?

Answer: The proposed FY 1997 budget for FY presuppression activities is $272.8 million, or 80% of MEL, with fuels management funded at $24.5 million.

The impact of not carrying out the additional prescribed burning is the continued deterioration of forest health and buildup of heavy fuel loading. The actual yearly impact will be partially dependent on the number of fires and the weather conditions, but delaying the treatment of the fuels will increase the acres burned, the intensity of the burns, and the threat to resources and private property.

135. Question: Smokey Bear is one of the dearest symbols in America yet he is often associated with the past policy that stopped all fires and resulted in the dense, over-stocked stands in the west that have had such insect and disease problems. Is it time for Smokey to readjust

his message and become the "fire management bear"?

Answer: Smokey's message is just as accurate today as it was 50 years ago. Its success is due to its simplicity in telling everyone to be careful with fire in the forest. Unwanted human caused fires were not beneficial then and they are not beneficial now. Fire management means the entire range of fire activities including the use of prescribed fire as a tool for the re-introduction of fire into an ecosystem. The Forest Service will continue to use Smokey's message as a part of a balanced, effective program.

136. Question: The Committee is concerned that the growing cost of fighting fires are due in part to fire suppression tactics that are not commensurate with the resources protected and to high levels of fuels in many areas. The Committee has urged the agencies to undertake efforts to reduce fuel loads through prescribed fire or other means as a method to reduce future fire suppression costs and to improve the health of the lands and resources. What efforts have been taken along these lines?

Answer: We agree that the cost of fire suppression should be commensurate with the values at risk. Following the 1994 fire season, a concentrated effort was undertaken to identify areas with potential cost savings and implement a program to realize these savings. The Forest Service is increasing the number of acres treated by prescribed fire and other means. We are establishing a group of assessment teams that will assist the line officer managing large, complex fires. In addition we continue to utilize initial attack resources to stop fires effectively before they escape and become very costly to control.

137. Question: There has been an increasing tendency for people to acquire a "getaway" in the woods, hills, mountains. This has resulted in extending the urban-forest interface well away from the traditional urban centers. How has this transition affected not only the method of suppressing fire, the strategy in fire suppression, and the costs associated with wildland fire suppression?

Answer: Though it is hard to quantify, the Forest Service cost of fighting wildland/urban fires is often higher than the cost of suppressing wildland fires. Methods and strategies employed are different, and require specialized training and equipment in many instances. Generally, a disproportionate number of firefighters and equipment are needed in areas where lives and property are threatened from fire. It is estimated that 60 percent of the resources deployed on 1994 fires were used in wildland/urban interface situations. Structural engines are frequently a major cost for large fires of this type.

Strategies and methods of firefighting in the wildland/urban interface generally involve concentrated tactics to prepare homes and property that are in the path of on-coming fires. This includes removing excess vegetation and flammable materials from around buildings and applying foam and water to prevent ignition. Once the fire has reached homes and property, additional foam and water is applied to surrounding fuels and directly on buildings if it is safe to do so.

138. Question: Assuming that when a structure (domicile) is threatened by an advancing fire that the efforts are redoubled to save the structure. Are there any attempts made to recover the cost of the suppression effort either from the home owner, or their indemnifier. If these expenses are not recouped, why aren't they?

Answer: The Forest Service does not attempt to recover the cost of suppression of structures from the individual owner unless the homeowner is found negligent in igniting the fire. The jurisdictional responsibility for fighting structural fires in wildland urban interface areas generally rests with local or State organizations. The Forest Service provides cooperative aid to these agencies, as they do for us by written agreement. This assistance is either in the form of reciprocal aid where the Forest Service receives assistance of equal value from the cooperating agency, or reimbursable aid where each agency is reimbursed for their expenses while fighting fire on the other jurisdiction.

139. Question: Clearly fire suppression efforts are extremely expensive since they operate on a minimal risk basis. Has any effort been made to attempt to identify situations where an acceptable level of risk is appropriate, thus dictating a less aggressive effort at fire suppression efforts?

Answer: Fire suppression does operate on a minimal risk basis when the lives of firefighters and the public are threatened or when public or private property is involved. There is a cost associated with the protection of lives and property and the Forest Service will not operate in a manner that jeopardizes firefighters or the public. The Federal Wildland Fire Policy states "Fire are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives." In areas where less aggressive, and less costly suppression actions can be used, the agency encourages and requires that managers use the least expensive fire suppression alternative.

140. Question: As a fire increases in size (class) fire bosses are required to have different levels of experience and training. What training requirements are there at the different ratings of fire bosses?

Answer: There are four levels of Incident Commander (Fire Boss) identified in the Incident Command System. Incident Commanders (IC) are assigned to incidents based the complexity of the situation, not just the projected fire size.

The least complex fire situation requires a Type 4 IC. This level of IC requires experience as a Crew Boss or Engine Boss. A Type 3 IC is required to manage an extended attack fire situation. A Type 3 IC requires previous experience as a Task Force Leader. A Type 2 IC can manage large fire incidents that may include up to 500 firefighters. A Type 2 IC must have previous experience as a Type 3 IC, a Division

Supervisor, and served as a Planning Section Chief or Logistics Section Chief on a Type 2 complexity fire. A Type 1 IC is assigned to the most complex situations. They must have experience as a Type 2 IC, and completed Advanced Incident Management training.

141. Question: Current funding for fire suppression efforts ought to be at a floating ten year average. This assumes that the only variant is related to weather patterns. What other dynamic factors have taken place over the last ten years that might affect the potential for a wildland fire, either increase or decrease the risk. If any of these are adverse, are these other causative factors manageable, and if so what actions are being taken to minimize their impacts?

Answer: There are two major factors that have affected the risk and cost of fire suppression over the past 10 or more years. The first is the increase in development in the wildland urban interface. As people move from the cities and suburban areas further into the forested areas, the risk and complexity in fire suppression increase as do the costs. The second is the build up of highly flammable fuels and the deterioration of the health of the forests and rangelands. Both of these can be mitigated and the Forest Service, along with our cooperating federal, State, and local agencies are focusing on these issues. We are increasing the use of prescribed fire and other methods to reduce fuel loading. In addition, several cooperative efforts are underway to identify the high risk interface areas, and to work with cooperators to reduce that risk, which increases firefighter and public safety.

142. Question: Please explain the role and responsibility of other non-federal cooperating agencies in the overall fire suppression effort. What level of manpower, material and fiscal resources do they contribute to the effort. How are the cooperative efforts synchronized?

Answer: The role of non federal cooperating agencies in the overall fire suppression effort is one of coordination and assistance. State and local firefighting resources provide protection on the lands for which they have statutory responsibility, and work cooperatively on other lands with local, State and federal agencies, by cooperative agreement. For example, during the peak of the 1994 fire season the states provided 147 20-person fire crews, 296 engines, 26 aircraft, and 2,136 overhead personnel towards national efforts. Cooperative efforts are synchronized by preplanning before fires begin, and coordination during fire situations. State and local firefighters are trained to operate under the Incident Command System and are part of the national mobilization process coordinated through the National Interagency Fire Center in Boise, Idaho.

143. Question: What is the proper balance between presuppression and suppression efforts. If a more aggressive presuppression effort were made, how long would it take until it started to reduce the level of effort required in suppression activities?

Answer: The National Fire Management Analysis System (NFMAS) is used to identify the most economically efficient fire presuppression program. NFMAS estimates fire suppression costs and net changes in resource values (NVC = damages less benefits) that are likely to occur as a result of various levels of funding for the presuppression program, based on the assumption that fire suppression costs are influenced by our prevention, detection and initial attack capability. The analysis also identifies the most efficient presuppression program composition at any given funding level. The analysis is based on historic data and economic efficiency.

NFMAS estimates the expected annual average suppression cost and NVC for a given presuppression budget (exclusive of fuels management) based on that budget being held constant over a period of about 10 years. Since the actual severity of the fire seasons vary, the actual suppression cost and NVC experienced in a particular year also vary. The most efficient presuppression budget identified by the analysis is one that will result in the lowest program cost over time.

The FY 1997 President's budget funds the presuppression organization at 80% of MEL, $272.8 million. The difference between funding at 80% and 100% of MEL is nearly $200 million more in additional suppression costs, including changes in resource values, for an average fire season. Although the effect in the increase from 80% to 100% in presuppression funding could be realized within the fiscal year, the variability of any individual fire season makes it impossible to predict the actual annual savings in suppression costs. The amount above is for an average season over a 10 year period.

144. Question: If presuppression activities were pursued more aggressively, would they not provide some employment stability during the non-wildland fire portion of the year, thus benefiting not only the resources but also the local communities?

Answer: The Forest Service does not staff initial attack and other presuppression resources during the "non-wildland fire portion of the year." This would simply raise cost without providing any benefit in the protection of the national forests and grasslands. There is a benefit in providing for fuel treatment activities. Much of this activity, particularly mechanical treatments, takes place outside of the fire season. There is a tremendous benefit to forest health and to the reduction in fire costs. There may also be a benefit to the local communities through increased employment or contracting for the work.

ROADS AND CONSTRUCTION

145. Question: Please explain why the Forest Service continues to need more funds for road construction when you are also requesting so much money for road destruction and obliteration?

Answer: About three quarters of road construction funds are planned for reconstruction of existing roads. Much of this is used for road stabilization, erosion control, placing rock or asphalt on travelways to reduce sediment; moving a road from near a creek to a location out of the riparian zone; revegetating cut and fill slopes; or replacing a bridge or culvert to provide fish passage or pass a 100 year storm.

Reconstruction for improved user safety is also a high priority. For example hundreds of bridges have exceeded their design life or are inadequate for current loads, and must be replaced soon. Thousands of additional bridges have guardrails that do not meet current safety standards. Without an aggressive replacement program increasingly large areas of National Forest land will be closed to access in the coming years. The planned FY 1997 program will allow us to replace only 12 bridges with appropriated road construction funds.

The roads being obliterated are causing most of the environmental damage due to poor location, steep grades and lack of proper drainage. They are mostly old skid trails, and timber or mining roads constructed without the benefit of design. They are not needed for management of National Forest lands and are being obliterated to reduce erosion, and enhance ecosystem management.

146. Question: Do you have sufficient funding in the roads construction budget to meet the 1997 timber target?

Answer: Yes, there is sufficient funding to meet the 1997 timber target.

147. Question: If the timber sale account is increased and the resulting timber harvest is adjusted up 10%, what additional road funding would be required?

Answer: If the capability exists to achieve a 10% increase in timber volume in FY 1997, it would require an additional 5 million dollars for road support. See the answer to question 31 discussing the need to increase funding in FY 1997 to prepare pipeline volume. The cost to support a million board feet (MMBF) of pipeline volume in FY 1997 would be the same as the cost to support a MMBF of sale volume.

148. Question: If we increase the need to build timber roads and do not provide substitute funding, what would be the impact on other roads, such as recreational roads?

Answer: The impact would be a further reduction in our ability to provide adequate access for our customers using recreation and general purpose roads. With increased priority on timber roads, there would be commensurate reductions in improvements and maintenance on other roads in the transportation system. In some cases, this would result in additional road closures for public safety and resource protection purposes. In areas that remained open to public use, the roads would deteriorate more rapidly resulting in the potential for increased sediment production, increased wear and tear on vehicles and increased future repair costs.

Recreation road funding is proposed at 88% of FY 1996 and is not keeping up with recreation facility construction now. A further loss of funding would cause even fewer recreation roads to be upgraded concurrently with the upgrade of recreation facilities, causing additional inconvenience to our customers.

General purpose road funding for FY 1997 is proposed at only 58% of FY 1996 funding. Deterioration of the national forests major road system will accelerate and needed bridge replacement will be further delayed, further reducing service to forest users.

149. Question: If we reduce the road funding by 10% below the requested level, what would be the impact on (a) the timber program, and (b) the use and access by the public of the national forests and grasslands?

Answer: In general, problems described in preceding questions would be increased. Assuming an across the board reduction, we would lose about 10% of the timber volume for FY 1997 since we would not be able to support those sales. Some loss of use of national forests and grasslands would result because of increased road closures and poor road condition. Motorists would have to reduce driving speeds in order to maintain safety. Wear and tear on vehicles would also increase.

150. Question: What funding level is called for in the current in-force forest and land resource management plans for road construction, reconstruction and maintenance? How much do you anticipate this will change as the plans are updated during the next few years?

Answer: Individual land and resource management plans (forest plans) provide estimates of dollar amounts needed to fund activities in the the plan at 100%. Until FY 1994, the Forest Service compiled detailed budget information for on Forest Plan implementation needs. This information showed that most individual forests were operating with substantially less appropriated funds than called for in forest plans. After several years of substantial work in preparing this data, House and Senate Appropriations Committees both agreed that information of this kind was not useful or efficient for budget appropriations and its compilation was suspended.

The Forest Service does not calculate the dollar amount needed to fund 100% of forest plan levels across the country for individual resources such as road reconstruction, construction, and maintenance. Historically, individual forests have reported that appropriated funds are consistently below the 100% plan level. As a result, backlogs in these areas have continued to grow.

Anticipating changes in funding levels needed for plan implementation has also been difficult. Preparing a forest plan can take two to four years and some forests have already begun the process or plan revision. Changing economic and resource conditions or forest priorities can make forest plan cost projections difficult. Therefore, forest plan implementation levels did not provide a good tool on which to base appropriation decisions.

151. Question: Critics suggest that you build roads to standards that are

either much too costly or that are insufficient to allow commercial activity. Please explain your road standards and suggest what efforts you are taking to save money on your construction program.

Answer: After careful study, Road standards are selected to provide the most cost effective and environmentally sound standard needed to serve the area and protect the resources. For major roads such as arterials and collectors, resource protection is balanced with efficiency of travel, safety, and user comfort. For local roads, configuration of the vehicles that will be using the road, along with resource protection, plays a much more important role in standard selection than travel speed. User comfort is not usually a consideration.

For all roads, emphasis is on providing the minimum facility needed to provide access to an area while giving special consideration to environmental protection. Since the early 1980's the Forest Service has undergone a series of initiatives to reduce the costs on reconstructing and constructing roads. As a result of those efforts road reconstruction/construction standards have been reduced and costs per mile are less than half of what they were in 1977 when expressed in terms of FY 1997 dollars. Unfortunately, reconstructing or constructing a facility to the minimum standard also results in higher reconstruction costs or more frequent reconstruction during the life of the facility.

152. Question: What does it cost the Forest Service to build a mile of road? How does this compare with timber industry programs and that of the States? What are you doing to develop technology to reduce these costs?

Answer: There is no one specific cost that fits all situations. The average cost of Timber Purchaser Construction in FY 1995 was $24,100 per mile for reconstruction and construction combined. The average cost for construction was $52,700 per mile and the average for reconstruction was $15,800 per mile. The cost is determined by a number of variables such as ground slope, soil conditions, climate, sensitivity of the area, and amount of traffic during the life of the road.

In general the cost to construct a mile of permanent timber access road with a Forest Service Timber Sale Contract is comparable to the cost to construct a mile of timber access road with a typical state or private contract. The Forest Service also uses temporary roads as a means of access, as do states and private timber companies, and our costs are comparable. The cost of temporary roads are not reflected in our request for appropriated road construction. They are a part of the purchasers operating costs and are reflected in the timber bid price.

The Forest Service has continued to explore ways to reduce road costs, including evaluation of road standards to assure the minimum cost and better planning and design to assure that standards are specified for the intended traffic during the life of the timber sale. We also invest in a significant program of innovation in road construction technology at our San Dimas and Missoula Technology Development centers.

MAINTENANCE

153. Question: We keep hearing about some real problems regarding maintenance of your road system, and especially your bridge system. What is the status of your infrastructure? How many bridges are in bad shape? How many need immediate repairs and how many are currently closed due to maintenance or safety problems?

Answer: Funding for infrastructure is not keeping pace with needs. As a consequence the infrastructure is continuing to deteriorate and the backlog is increasing.

There are 8,230 bridges in the Forest Service inventory, 15% or 11,210 bridges are rated deficient, as defined by the Federal Highway Administration (FHWA); 2.3%, or 190 bridges, are currently closed; and 7%, or 540 bridges, need immediate repairs to stay open or carry minimum legal loads. On average, the Forest Service has replaced about 50 bridges per year during the last 10 years. The agency needs to replace about 160 bridges per year to maintain a 50 year replacement cycle. Additionally, over half of the bridges in the inventory have guardrails which do not meet current standards. This will increase to 75% or more when new regulations take effect in the future.

154. Question: The summary of your budget states that the maintenance funds provide sufficient money to fully operate and maintain only 40% of the roads. What about the other 60%? Are we going to lose them to erosion? What loss of federal investment is happening here? Are we not only losing our past infrastructure investment but also causing water quality and erosion problems by failing to keep up with our maintenance?

Answer: On roads that are not fully maintained some loss of past infrastructure investment will occur. While most open roads will receive some maintenance, it will occur at a reduced level. Priority will be given to drainage and surface maintenance. Even so, the potential for water quality degradation, and erosion is increased when we are not able to fully maintain our road system.

There will be a loss of native and imported surfacing material and increased ditch erosion. Some slumps and slides will not be removed. Some drainage structures will not be maintained. All of these will contribute to the loss of past investment in the road system, increased sedimentation, and decreased user comfort.

In addition, road users will be forced to drive at a slower speed in order to travel the roads safely and will also experience increased vehicle operating and maintenance costs due to increased road roughness.

Examples of work that is being deferred includes roadside brushing, signing, bridge painting, surface rock replacement, grading, drainage and traffic control.

155. Question: Now that the bad floods of the winter are behind us, have you had a chance to update your assessment of construction and rehabilitation needs for roads and infrastructure in the Northwest?

Answer: The winter of 1996 brought extreme flooding to much of the Northwest as well as some other areas of the country. Continued spring storms in the northwest have added to the damage and prevented ready access for rehabilitation work. Total damage to roads associated with landslides, loss of road surfaces, washed out stream crossings, and debris was estimated in the millions of dollars. Our latest figures for the States with Forests in our Regions 1 and 6 are:

Oregon:	$39,386,000
Washington:	44,749,000
Montana:	2,431,000
Idaho	21,869,000
	108,435,000

Damages were sustained to roads and trails, watershed systems and improvements, campgrounds and related improvements, and some administrative facilities. These figures are based upon aerial and some field survey estimates, but are limited by several impediments: deep snow remaining at higher elevations, roads impassible due to landslides, and considerable volumes of downed trees blocking access. As these problems are overcome the initial estimates will be refined. As a result of these high priority needs, we have not had a chance to update our assessment of changes which might be needed in our annual construction and rehabilitation schedule for roads and infrastructure. The Omnibus Consolidated Rescissions and Aprropriations Act of 1996 (H.R. 3019) included $87.4 million in supplemental emergency funding to address flood damages.

ECOSYSTEM MANAGEMENT AND PLANNING

156. Question: Why are you asking for such a large increase in this account this year?

Answer: The FY95 final, with recission, was $149,732,000. The 1996 Conference action of 12/12/95 was $130,000,000 and the 1997 estimate is $145,000,000 which, in fact, represents a decrease over time. The $15,000,000 increase in reference is from the 1996 Conference action of 12/12/95 to the 1997 estimate.

The proposed program level would support the major components of the Ecosystem Planning, Inventory and Monitoring (EPIM) budget line item, enabling progress in meeting program objectives. Legally mandated schedules would be maintained.

This level allows for 6 National Forests to begin revising their forest plans to incorporate ecosystem management, and 27 forest plan revisions to continue into the second year. This would generally keep the agency on course towards the plan revision "peak" required during the next five years. It would facilitate timely work on associated appeals and litigation. Finally, this program level would contribute significantly towards functional resource management activities since the numerous EAs and EISs prepared annually for these projects and are tiered to the forest plans and their amendments.

This level of inventory activity would support the land and resource management plan (forest plan) revisions and amendments now scheduled to be ongoing or to begin in FY 1997. Integrated inventory products are used in forest plan revisions and amendments. The inventory level is expected to be 19.2 million acres (10 percent/year).

The proposed funding level allows for the continuation of the three eco-regional assessments approved by the Chief and begun in FY 1996. These assessments are expected to be completed within 1-3 years and include the Northern Great Plains, Great Lakes, and Ozarks. Large-scale assessments determine the condition of the Nation's ecosystems and provide the foundation for landscape level assessments and implementation plans.

This funding level maintains the level of monitoring activities needed to support the current level of land and resource management plan (forest plan) revisions and amendments. Monitoring will be undertaken or continued on all 123 forest plans. Integrated monitoring detects change over time, and provides a basis for management adjustments.

The proposed funding level also includes $35,278,000 for implementation of the President's Plan for the Pacific Northwest. These funds would be used to support the Watershed Assessment, Adaptive Management Areas, Planning, and Monitoring components of the President's Plan.

157. Question: Why can't you use the funding formulas that you used in the past to fund the forest plans?

Answer: We can no longer use past funding formulas because the budget was restructured in FY95 to include a specific ecosystem planning and monitoring EBLI. Planning includes amendments and revisions to Forest Plans and is focused above the project level. In earlier years the costs associated with forest plans were tracked through activity codes and regions were given a percentage of what they requested, based upon the actual appropriations.

The nature of funding "formulas" is evolving based on increasingly refined criteria such as those being generated for FY98 through ongoing dialogue between the Washington Office and the Regional Offices. These criteria are as objective as possible and are based on such factors as the number of national forests, the total acres involved, etc. As time progresses, these criteria will be further refined and, hopefully, provide an accurate picture of funding relationships between forests. Leadership still must make final decisions. Criteria will be a consistent source of data/information to help decisionmakers.

158. Question: What would be the impact of holding this account at the FY 1996 funding level? What would be the impacts of a further reduction below the 1996 level of 10 and of 20 percent?

Answer: The National Forest Management Act (NFMA) requires that each forest have a Forest Plan and that it be revised at least every 15 years. Current plans are essential for the highly complex, on-the-ground, use and protection of National Forests and Grasslands. Over the next five years, almost half of all Forest Plans must be revised. The proposed level allows for 6 National Forests to begin revising their plans to incorporate ecosystem management, and 27 plan revisions to continue into their second year. This is the minimum needed to keep the agency on course towards the plan revision "peak", allowing long-term strategies to be developed while recognizing the need to make short-term decisions. Failure to maintain this level and the plan progress it supports, creates a risk of the agency not meeting its legal revision requirements. Reductions to the 1996 level, or of 10-20% below that level, would increasingly assure lack of compliance with legal mandates.

The proposed level of inventory activity would support the required Land and Resource Management Plan (Forest Plan) revisions and related amendments. Integrated inventory data is essential as the cornerstone for planning and subsequent monitoring. Inventories provide the quantitative base necessary for sound management, conservation, and stewardship. In addition, they are specifically required by the Forest and Rangelands Renewable Resources Planning Act and the National Forests Management Act. Reductions to the 1996 level, or of 10-20% below that level, would increasingly jeopardize accumulation of information needed to carry out the legally mandated forest plans.

This funding level allows for continuation of three regional assessments begun in FY96 in the Northern Great Plains, Great Lakes and Ozarks. These assessments identify trends in ecological, social and economic systems, and, provide important efficiencies in the planning process by setting the larger context for forest and project level planning and decisions. Failure to complete these assessments would be detrimental to efforts already initiated to establish partnerships, establish regional relationships beyond the single forest level, encourage "up-front" public involvement and participation, and to increase cooperation with Federal, State, and Tribal Governments. This also could delay upcoming Forest Plan revisions, and make them more costly. Reductions to the 1996 level, or of 10-20% below that level, would increasingly jeopardize the assessments and related public involvement.

Integrated monitoring and evaluation of Forest Plans over time, in terms of their implementation, effectiveness, and validity, provide a basis for management adjustments. Monitoring of forest plans has been uneven to date and risks litigation if not accomplished. This funding level will support monitoring activities on all 123 Forest Plans; and, subsequent evaluation will provide input to Forest Plan revisions, or needed management adjustments. Reductions to the 1996 level, or of 10-20% below that level, would increasingly jeopardize the agency's ability to monitor and evaluate the plan effectiveness and success over time. The effects would be a decrease in quality across the board, rather than affecting monitoring and evaluation activities on a specific number of individual forests.

159. Question: What is going on now with respect to ecosystem assessments? Are you still spending money on these assessments? Where?

Answer: Ongoing assessments include the Great Lakes Assessment and the Northern Great Plains Assessment. The Ozark-Ouachita Highlands Assessment is proposed to begin in FY 1996. All of these assessments are designed to provide a scientific information base to update forest plans.

160. Question: Do you intend to keep on doing assessments for the entire national forest system? Why don't you stick to the National Forest Management Act and do forest plans one at a time as described in law and regulations?

Answer: The decision to conduct an ecoregion assessment is made by a Regional Forester(s). If a Regional Forester determines there is a need to improve the social, economic and/or ecological information base before amending the Forest Plan, developing an assessment is an option he or she may choose. We will continue to develop Forest Plans "one at a time". Ecoregion assessments describe the biological, physical and social settings within which the individual forests physically reside. They set the context for planning based on the ecological and social processes at work in the region, and facilitate the coordination of management across National Forests.

161. Question: Have you completed a report summarizing the ecosystem assessments? What are the implications of this report? What costs have been involved in these assessments? How can this possibly have saved the government money over other forest planning methods?

Answer: We have produced a report summarizing ecoregion assessments. The report was sent to Congress on April 18, 1996. The report indicates that we are improving the cost effectiveness and efficiency of ecoregion assessments. The adaptive approach in place provides for instantaneous transfer of assessment techniques, process, information mangement, etc. This adaptive approach will continue to lead to greater efficiency over time.

One of the major costs of assessments is the development of information data bases. Once the data bases are in place, costs of maintaining them will decline. These same data bases are needed for national, forest level and project level planning. In addition, costs of information will decline as we standardize information among the various federal and state agencies.

Assessments are not new to the forest planning process. The Forest Service has always conducted assessments as part of forest and project level planning. What is new is the recognition that ecosystems are hierarchical (including social systems) and that to understand the driving forces within ecosystems it is necessary to understand how these systems function at various scales of time and space.

162. Question: Which assessments do you intend to work on and complete during FY 1997? Which assessments do you intend to begin? Is funding to support these assessments included in the budget request?

Answer: Below is a table showing proposed funding for the Great Lakes Assessment, the Northern Great Plains Assessment, and the Ozarks-Ouachita Highlands Assessment. The regions have budgeted for these assessments.

Great Lakes		
	$221,000	FY96
	$221,000	FY97
Northern Great Plains		
	745,000	FY96
	1,050,000	FY97
Ozarks-Ouachita Highlands		
	350,000	FY96
	463,000	FY97

163. Question: What is the status of forest plan monitoring reports? How many national forests or grasslands did not file monitoring reports as required?

Answer: While there are various efforts underway to specify the frequency and content of forest plan monitoring reports, there is currently no legislative, regulatory, or administrative agency requirement regarding these reports. Approximately 100 monitoring and evaluation reports have been filed in the Washington Office over the past 10 years.

164. Question: Do you feel that you are doing sufficient monitoring of the forest plans? Are you at risk for legal action if you are not doing enough here?

Answer: Considerable effort and attention is being given to monitoring forest plans but we would like to do much more. Work is underway to better focus these efforts and to improve the quality and quantity of forest plan monitoring. The legal responsibilities of the agency in this area are relatively unexplored. District courts have ruled in differing directions when it comes to monitoring forest plans. Judge Dwyer in Seattle Audubon Society v. Lyons ruled that monitoring was critical to the implementation of the Northwest Forest Plan. Other District courts (e.g., Forest Preservation Society case in California and Idaho Sportsmen's Coalition case) have ruled that no laws apply and that the agency has total discretion for monitoring. The question is currently being debated in Wyoming Outdoor Council v. Davis.

Although the overall risk for legal action against the agency is unknown, the ability to accurately assess plan implementation will continue to an important tool for measuring success in meeting our objectives.

165. Question: What does it cost to complete the work required by forest plan monitoring protocols? What percentage of the monitoring work is funded? What percentage is completed?

Answer: The best estimate of what it would take to completely monitor and evaluate the forest plans is $60 million annually. For FY 1995 approximately $12 million was spent to monitor forest plans, or 20 percent of the overall need. This percentage is probably a reasonable estimate of the proportion completed as well.

166. Question: Please explain this new inventory and monitoring institute I have heard about. How much will that cost? Where will the funds come from? How will you assure that the funds are used to help with actual management problems and not just go into more esoteric research or policy?

Answer: The Inventory and Monitoring Institute is currently in the development phase. The goal of the Institute will be to serve as a Forest Service focal point for 1) coordinating and integrating inventory, monitoring and evaluation activities; 2) standardizing protocols and quality assurance procedures to permit aggregation of scientifically credible data across administrative boundaries; 3) providing technical assistance and serving as a clearinghouse for inventory, monitoring and evaluation techniques, procedures, and methods; and 4) coordinating and prioritizing research and development of inventory, monitoring, and evaluation techniques.

Since a primary goal is better coordination and integration of existing efforts, much of the funding will come from more efficient use of existing resources. It is anticipated that the Institute will consist of a small staff, assembled by re-assigning existing personnel. It is anticipated that a small amount of 'off-the-top' funding will be assessed to provide operating capital for the Institute staff. Although the small core staff will be commonly located, operations for the Institute will be 'virtual', that is analysts and researchers may participate in Institute projects (not necessarily as employees of the Institute) from any location.

167. Question: What would be the result of taking the funds in the ecosystem management account and putting them back into the programs from which they came?

Answer: In FY95 a line item in the National Forest System budget for Ecosystem Planning (P), Inventory (I), and Monitoring (M) was established which would "...fund PIM activities ABOVE THE PROJECT LEVEL, including eco-region assessments". The FY95 Explanatory Notes indicated this was "...essential for implementation of an ecological approach to multiple-use management and provides the overall framework for guiding all resource management programs". This was just one part of a larger budget structure package to improve efficiency, accelerate implementation of ecosystem management, reduce mainhead appropriations, and decrease the number of Expanded Budget Line Items.

If all the funds were returned to the programs from which they came, we would lose much of the integrated management of ecosystem planning, inventory and monitoring. Each resource area would be in competition for a portion of available funds. The momentum reated in moving towards a holistic approach, which considers the biological, physical and human dimensions of natural resource management, would be lost. Newly established interdisciplinary working relationships could be diminished.

168. Question: To what extent are the same inventory activities going on that were previously funded by the various program accounts? For instance, does the EM funding provide for sufficient timber, range, wildlife, fisheries, watershed, soil, air, and other resource inventory activity?

Answer: The amount of appropriated funds available for this budget line item has decreased by almost $30 million, from FY 95 to FY 96. This is the major impact on the amount of inventory activity we will be able to accomplish. Our budget advice to the regions established priorities for inventory activities including; range, forested land, human dimensions, and ecological units which includes; soils, geologic, geomorphic, climatic, and potential vegetation parameters. In addition, criteria were provided to the regions for assessing the highest inventory priorities for integrated forest resource information to address national, regional, and sub-regional issues. Single resource inventories such as a habitat inventory to support a wildlife stocking project or stand examination information to support preparation of salvage and other timber sales are covered by project dollars.

169. Question: What percent of the forest plan inventory work will be funded? Is there a shortfall below what your forest plans call for? What will be the impact of not doing the inventory work called for in the forest plans?

Answer: "Ecosystem inventory" represents a broad diversity of inventory types with differing scales, intensities and procedures. Inventory information is collected at the project, forest, region and national scale. As a result, we do not track inventory related to forest plans in total. With levels of funding falling consistently below projected forest plan levels, there is certain that a shortfall of needed inventory work exists. The level of project implementation as called for in forest plans is generally commensurate with the level of inventory completed. Therefore, it is likely that projects are foregone regulary because of incomplete inventory information.

MULTIPLE USE, RECREATION

170. Question: What is the recreational use of the national forests and

grasslands? Please provide a summary table of use by national forest and grassland?

Answer: In FY 1995, the national forests received over 345 million Recreation Visitor Days (RVDs) of use, or 829.8 million visits! (A RVD is a statistical reporting unit consisting of 12 visitor hours; a visit is an entry of one person upon a national forest for the purpose of participating in one or more recreation activities for an unspecified period of time. Only the primary activity of the visitor is recorded however). The Forest Service collects recreation use by type of activity by Forest Service Region and by State. These are attached for FY 1995. In addition, we poll the Regions and ask them to submit their 5 highest use forests. These are also attached. Due to the cost and time involved to gather the information by national forest, we hope that this currently existing data will fill your need.

1995 RECREATION USE REPORT SERVICEWIDE BY STATE
(THOUSANDS RECREATION VISITOR-DAYS)

	Camping, Picknicking, & Swimming	Mechanized Travel & Viewing Scenery	Hiking, Horseback, & Water Travel	Winter Sports	Resorts, Cabins, & Organization Camps	Hunting	Fishing	Non Consumptive Fish&Wild Life Use	Other Recreation Activities	Total	Percentage of Total States	Wilderness	Visits *
ALABAMA	184.1	117.1	63.2	0.0	0.4	161.6	68.0	5.1	80.9	680.4	0.20%	29.9	1,242.9
ALASKA	369.3	3,844.0	363.2	89.9	175.7	140.0	496.2	43.8	457.9	5,980.0	1.73%	647.1	10,648.2
ARIZONA	8,084.6	13,736.5	3,033.2	408.0	991.7	1,010.0	984.5	532.2	4,383.8	33,164.5	9.61%	872.1	72,196.9
ARKANSAS	618.0	551.1	221.3	0.0	25.8	517.5	106.4	28.8	137.1	2,206.0	0.64%	42.8	5,448.8
CALIFORNIA	17,781.6	36,691.9	5,538.3	4,605.9	7,682.5	1,653.5	3,203.1	381.5	3,438.6	80,976.9	23.47%	2,584.5	181,032.6
COLORADO	6,079.8	10,212.1	2,726.9	6,525.1	766.1	1,756.4	1,697.5	176.5	1,030.3	30,970.7	8.97%	1,277.6	60,488.1
FLORIDA	1,716.6	488.6	178.8	0.0	217.0	233.9	172.5	21.4	128.6	3,157.4	0.91%	28.6	9,472.0
GEORGIA	965.7	1,046.8	422.5	1.0	48.8	367.2	208.8	38.4	92.2	3,191.4	0.92%	106.1	8,768.4
IDAHO	4,280.6	3,947.1	1,303.5	878.9	570.6	1,138.3	937.6	188.4	1,018.7	14,263.7	4.13%	974.0	22,252.6
ILLINOIS	249.5	412.3	179.6	0.0	8.2	133.2	42.6	17.5	76.4	1,119.3	0.32%	133.0	985.0
INDIANA	231.8	94.0	82.4	2.0	15.8	102.7	52.0	5.7	32.5	618.9	0.18%	4.5	510.0
KANSAS	17.1	27.0	3.3	0.0	0.9	8.6	14.1	2.5	11.5	85.0	0.02%	0.0	181.3
KENTUCKY	664.3	719.2	264.8	4.0	15.9	217.1	222.2	13.5	129.6	2,250.6	0.65%	30.5	5,590.7
LOUISIANA	200.4	156.9	26.0	0 0	23.8	112.7	28.6	4.9	37.7	591.0	0.17%	6.1	1,737.1
MAINE	30.9	64.5	18.6	4.2	5.5	9.4	6.1	1.8	6.3	147.3	0.04%	11.5	1,000.0
MICHIGAN	1,603.9	1,564.0	255.9	65.8	138.9	522.0	405.0	20.7	143.9	4,720.1	1.37%	129.9	8,943.6
MINNESOTA	1,926.2	1,090.8	880.9	109.1	434.9	335.6	881.5	35.2	129.6	5,823.8	1.69%	1,408.0	8,896.9
MISSISSIPPI	256.1	371.8	124.0	0.0	11.8	412.3	96.7	30.7	105.7	1,409.1	0.41%	18.2	2,632.2
MISSOURI	684.4	616.2	361.0	0.1	11.2	281.1	145.9	20.2	110.1	2,230.2	0.65%	64.7	6,467.6
MONTANA	2,503.7	4,835.1	1,467.5	790.2	417.8	1,212.4	911.6	167.1	1,296.1	13,601.5	3.94%	909.3	30,820.8
NEBRASKA	93.5	41.8	21.2	0.4	7.8	58.0	2.2	3.1	20.1	248.1	0.07%	2.2	618.3
NEVADA	1,054.0	1,124.8	437.3	386.7	146.6	181.6	85.0	76.7	248.9	3,741.6	1.08%	327.1	24,169.0
NEW HAMPSHIRE	656.0	1,309.6	472.5	547.5	232.5	43.1	30.3	15.7	45.1	3,352.3	0.97%	117.9	5,500.0
NEW MEXICO	3,050.7	2,145.8	706.0	865.9	396.5	529.8	326.6	179.0	1,274.4	9,474.7	2.75%	546.4	12,685.5
NEW YORK	79.1	7.5	5.1	1.0	0.0	4.2	1.6	1.0	3.9	103.4	0.03%	0.0	51.7
NORTH CAROLINA	1,656.4	2,377.0	1,175.6	13.8	96.5	774.4	332.0	40.4	290.2	6,756.3	1.96%	271.3	19,905.8
NORTH DAKOTA	14.2	27.7	15.2	0.8	0.0	50.4	1.6	3.0	2.6	115.5	0.03%	0.0	385.0
OHIO	93.4	130.8	73.8	0.3	0.0	230.0	55.0	5.0	62.9	651.2	0.19%	0.0	900.0
OKLAHOMA	55.0	179.6	49.9	0.0	0.0	65.9	17.1	10.2	10.9	388.6	0.11%	1.6	1,790.3
OREGON	11,289.5	11,719.1	3,889.7	1,583.9	2,027.7	2,026.4	1,976.4	594.2	1,924.7	37,031.6	10.73%	1,003.8	97,483.8
PENNSYLVANIA	972.2	1,646.4	341.2	9.5	47.9	173.0	184.8	30.4	97.6	3,503.0	1.02%	3.4	14,795.5
PUERTO RICO	92.1	16.6	7.3	0.0	0.0	0.0	0.0	44.0	11.1	171.1	0.05%	0.0	700.0
SOUTH CAROLINA	267.2	233.3	136.6	0.0	0.9	210.4	58.4	13.6	66.6	987.0	0.29%	12.6	2,549.4
SOUTH DAKOTA	301.8	2,518.4	201.4	14.6	119.3	97.3	151.8	13.0	118.2	3,535.8	1.02%	33.9	6,022.3
TENNESSEE	1,242.0	927.7	320.3	4.9	100.4	257.9	198.8	30.1	86.1	3,168.2	0.92%	43.1	9,504.6
TEXAS	674.5	467.6	108.2	0.0	26.8	237.9	799.9	27.0	98.4	2,440.3	0.71%	9.1	3,852.8
UTAH	6,147.0	6,604.8	1,316.3	1,269.3	886.9	834.4	1,080.1	77.4	773.6	18,989.8	5.50%	461.3	43,554.5
VERMONT	127.9	310.1	107.8	600.0	55.4	85.5	21.2	1.7	82.9	1,392.5	0.40%	23.4	2,698.0
VIRGINIA	1,120.7	1,566.2	459.2	32.1	19.3	836.3	352.7	72.3	243.0	4,701.8	1.36%	86.9	17,862.4
WASHINGTON	5,165.5	11,490.7	3,384.2	1,090.6	1,119.9	853.3	420.0	120.2	1,152.5	24,796.9	7.19%	891.1	97,520.6
WEST VIRGINIA	552.9	291.9	153.8	5.9	37.7	219.9	129.2	10.2	59.7	1,461.2	0.42%	53.0	4,156.3
WISCONSIN	612.0	806.0	124.5	28.1	19.5	257.9	502.8	19.3	160.7	2,530.8	0.73%	17.7	10,134.4
WYOMING	2,011.0	2,468.5	1,294.7	408.6	729.3	591.6	378.7	84.3	386.7	8,353.4	2.42%	678.6	13,683.9
Total	85,777.2	128,998.9	32,316.7	20,348.1	17,634.2	18,944.7	17,787.1	3,207.7	20,068.3	345,082.9	100%	13,862.8	829,839.8
Percentage	24.86%	37.38%	9.36%	5.90%	5.11%	5.49%	5.15%	0.93%	5.82%	100%		4.02%	4.99

A recreation visitor day (RVD) is a statistical reporting unit consisting of 12 visitor hours. A visitor hour is the presence of a person on an area of land or water for the purpose of engaging in one or more recreation activities during a period time aggregating 60 minutes.

* Visits = an entry of one person upon a National Forest for the purpose of participating in one or more recreation activities for an unspecified period of time. Only the "primary" activity of the recreation visitor is recorded.

1995 RECREATION USE REPORT SERVICEWIDE BY REGION
(THOUSANDS RECREATION VISITOR-DAYS)

	Camping, Picknicking, & Swimming	Mechanized Travel & Viewing Scenery	Hiking, Horseback, & Water Travel	Winter Sports	Resorts, Cabins, & Organization Camps	Hunting	Fishing	Non Consumptive Fish&Wild Life Use	Other Recreation Activities	Total	Percentage of Total States	Wilderness	Visits *
REGION 1	3,795.3	6,374.1	1,890.8	911.0	565.5	1,740.0	1,163.0	216.2	1,690.6	18,346.5	5.32%	1,111.5	39,700.6
REGION 2	7,401.9	14,314.7	3,314.8	6,670.3	1,343.3	2,236.6	2,086.2	250.7	1,421.0	39,039.5	11.31%	1,571.9	77,902.4
REGION 3	11,141.6	15,885.5	3,739.8	1,273.9	1,388.5	1,542.2	1,312.8	711.5	5,658.9	42,654.7	12.36%	1,418.5	84,921.4
REGION 4	11,345.5	11,145.1	3,539.7	2,542.3	1,763.9	1,941.3	2,100.8	283.1	1,792.3	36,454.0	10.56%	1,960.6	108,698.7
REGION 5	17,485.3	36,539.1	5,503.4	4,762.2	7,659.1	1,641.9	2,990.4	378.0	3,429.7	80,389.1	23.30%	2,488.2	156,581.9
REGION 6 **	16,711.3	23,336.0	7,350.8	2,669.2	3,143.6	2,902.4	2,519.3	759.9	3,088.9	62,481.4	18.11%	2,011.2	195,329.2
REGION 8	9,793.3	9,334.7	3,593.3	58.5	589.1	4,528.0	2,681.8	388.0	1,539.5	32,506.2	9.42%	688.8	92,814.7
REGION 9	7,733.7	8,225.7	3,020.9	1,370.8	1,005.5	2,272.3	2,436.6	176.5	989.5	27,231.5	7.89%	1,965.0	63,242.7
REGION 10	369.3	3,844.0	363.2	89.9	175.7	140.0	496.2	43.8	457.9	5,980.0	1.73%	647.1	10,648.2
Total	85,777.2	128,998.9	32,316.7	20,348.1	17,634.2	18,944.7	17,787.1	3,207.7	20,068.3	345,082.9	100%	13,862.8	829,839.8
Percentage	24.86%	37.38%	9.36%	5.90%	5.11%	5.49%	5.15%	0.93%	5.82%	100%		4.02%	4.99

A recreation visitor day (RVD) is a statistical reporting unit consisting of 12 visitor hours. A visitor hour is the presence of a person on an area of land or water for the purpose of engaging in one or more recreation activities during a period of time aggregating 60 minutes.

* Visits = an entry of one person upon a National Forest for the purpose of participating in one or more recreation activities for an unspecified period of time. Only the "primary" activity of the recreation visitor is recorded.

** Numbers for Region 6 are from 1994

NATIONAL FORESTS RANKED BY AMOUNT OF RECREATION USE IN FY 1995
(Thousands)

RANK	REG.	STATE	FOREST NAME	RVDs[*]	VISITS[**]
1	4	UT/WY	Wasatch-Cache/Uinta	10,518.2	32,520.1
2	3	AZ	Tonto	10,507.3	38,184.5
3	3	AZ	Coronado	9,903.9	11,305.0
4	5	CA	Inyo	9,839.2	29,985.2
5	5	CA	Angeles	9,815.9	29,579.2
6	2	CO	White River	8,045.0	10,136.7
7	6	WA	Gifford Pinchot	7,690,1	34,780,1
8	2	CO	Pike/San Isabel	7,325.0	15,311.0
9	8	NC	NFs in North Carolina	6,756.3	19,905.8
10	3	AZ	Coconino	6,628.7	8,500.0
11	6	WA	Mt Baker-Snoqualmie	6,551,8	23,070.8
12	5	CA	San Bernardino	6,353.4	1,852.0

rev. 4/25/96

NATIONAL FORESTS RANKED BY AMOUNT OF RECREATION USE IN FY 1992
(Thousands)

RANK	REG.	STATE	FOREST NAME	RECREATION VISITOR DAYS
1	3	AZ	TONTO	9,247.4
2	5	CA	ANGELES	9,158.0
3	5	CA	INYO	8,376.3
4	2	CO	WHITE RIVER	8,232.3
5	4	UT	DIXIE	6,175.6
6	3	AZ	COCONINO	5,788.4
7	8	NC	NFS IN NORTH CAROLINA	5,767.3
8	2	CO	PIKE SAN ISABEL	5,590.3
9	5	CA	SAN BERNARDINO	5,501.1
10	6	OR	MT. BAKER-SNOQUALMIE	5,498.3
11	2	CO	ARAPAHO-ROOSEVELT	5,437.7

[*] A recreation visitor day (RVD) is a statistical reporting unit consisting of 12 visitor hours. A visitor hour is the presence of a person on an area of land or water for the purpose of engaging in one or more recreation activities during a period of time aggregating 60 minutes.

[**] Visits = an entry of one person upon a National Forest for the purpose of participating in one or more recreation activities for an unspecified period of time. Only the "primary" activity of the recreation visitor is recorded.

TOP 5 MOST VISITED NATIONAL FORESTS BY RVD OF RECREATION USE FY95

	FOREST NAME	RVDs	VISITS	RANK
Region 1				
MT	Gallatin NF	3,954.8	4,943.0	
ID	Idaho Panhandle NF	2,534.5	3,610.0	
MT	Kootenai NF	1,617.9	4,045.0	
MT	Bitterroot NF	1,264.1	3,792.0	
MT	Deerlodge NF	1,257.7	3,144,2	
Region 2				
CO	White River	8,045.0	10,136.7	6
CO	Pike/San Isabel	7,325.0	15,311.0	8
CO	Arapaho/Roosevelt	5,698.6	14,264.6	
CO	GMUG	4,293.3	4,909.1	
SD/WY	Black Hills	3,572.0	3,301.0	
Region 3				
AZ	Tonto	10,507.3	38,184.5	2
AZ	Coronado	9,903.9	11,305.0	3
AZ	Coconino	6,628.7	8,500.0	10
AZ	Apache/Sitgreaves	3,217.7	4,962.4	
NM	Santa Fe	2,862.9	3,919.5	
Region 4				
UT/WY	Wasatch-Cache/Uinta	10,518.2	32,520.1	1
NV/CA	Humboldt-Toiyabe NF	4,344.8	48,690.0	
UT	Dixie NF	4,412.9	6,709.4	
UT/WY	Ashley NF	2,017.7	3,794.9	
ID/WY	Targhee NF	1,739.3	3,509.1	
Region 5				
CA	Angeles	9,815.9	29,579.2	5
CA	Inyo	9,839.2	29,985.2	4
CA	San Bernardino	6,353.4	1,852.0	12
CA	Tahoe	5,072.3	14,302.0	
CA	Los Padres	5,054.4	10,850.6	
Region 6				
WA	Gifford Pinchot	7,690,1	34,780.1	7
WA	Mt Baker-Snoqualmie	6,551,8	23,070.8	11
WA	Wenatchee	5,166,8	14,867.3	
OR	Siuslaw	4,739,5	21,136.2	
OR/ID	Wallow-Whitman	4,340,4	12,724.6	
Region 8				
NC	NFs in North Carolina	6,756.3	19,905.8	9
VA	GW & Jefferson NFs	5,127.9	19,668.7	
GA	Chattahoochee-Oconee NFs	3,191.4	8,768.4	
TN	Cherokee NF	3,168.2	9,504.6	
FL	NFs in Florida	3,157.4	9,472.0	
Region 9				
MN	Superior	4,147.8	7,221.1	
PA	Allegheny	3,503.0	14,795.5	
NH	White Mountain	3,499.6	6,500.0	
MO	Mark Twain	2,230.2	6,467.6	
MI	Huron-Manistee	1,823.9	1,813.3	
Region 10				
AK	Chugach	2,004.5	8,301.8	
AK	Tongass	3,975.5	2,346.4	

171. Question: What types of uses predominate? Does the national forest system provide any special recreation that can not be found elsewhere?

Answer: The above summary indicates that the predominate uses include mechanized travel and viewing scenery, camping, picnicking, and swimming.

The Forest Service manages over 191 million acres of public land in 42 States, Puerto Rico, and the Virgin Islands. These public lands are known collectively as the National Forest System (NFS). The natural resources on these lands are some of the Nation's greatest assets and have major economic, environmental, and special significance for all Americans. Just a few of the resources that contribute to the recreational setting include 902 municipal watersheds, 250 winter sports sites and 120 downhill ski areas, 2.3 million acres of fishable lakes, ponds and reservoirs, 80% of the elk, mountain goat, and bighorn sheep habitat in the lower 48 States, 197,000 miles of perennial streams, 5.4 million acres of wetland habitat, over 125,000 miles of trails, 7,689 campgrounds, swimming areas, picnic grounds, boating and interpretive sites, and about 75% of the designated National Wilderness System in the lower 48 States. This combination of resources provides the setting for significant recreation activities.

Although the activities provided on NFS lands may not be singularly unique from any other land use manager or supplier, the NFS lands do provide the largest quantity and widest spectrum of public land recreation opportunities in the Nation, both in variety of use and in type of setting and location. Recreational use of the national forests range from wilderness to urban, from auto tours to white water rafting, from backcountry hiking to camping in developed sites. The Forest Service offers interpretation and education of our Nation's natural wonders and cultural resources including old growth forests, earthquakes, volcanoes, wildlife, botany, fisheries and firefighting. The settings and location of NFS recreation opportunities include the deserts of the Pacific Southwest, the jagged mountain terrain of the Pacific Northwest and Intermountain Regions, the mist-shrouded fiords of Alaska, and the tropical forest of Puerto Rico.

172. Question: What role does this recreation have in the local as well as the nation's economy?

Answer: The role that national forest recreation plays in local economies varies widely. In some cases, communities are totally dependant on the business generated by national forest recreation visitors. Visitors bring new dollars into communities - spent at local stores, gas stations, restaurants, for outfitter and guide services, and for hotels. Consumption is local, thus causing a much stronger direct economic impact than extractive resources that are often processed and sold elsewhere. With over 829 million recreation visits taking place on the national forests in FY 1995, significant dollars are spent in many local communities.

Based on economic impact analysis completed for the 1995 Resource

Planning Act (RPA) Draft Program, national forest recreation is expected to contribute almost $100 billion to Gross Domestic Product (GDP) by the year 2000. With a total NFS projected contribution of $130 billion, recreation will provide almost 75 percent of the total GDP contribution of the national forests. These numbers are not indicators of the planned dollar amounts the Agency plans to spend on recreation.

173. Question: How many private sector workers rely on the recreational industry that results from national forest system programs?

Answer: Based on the 1995 RPA Economic Impact analysis it is expected that over 2.5 million jobs will be associated with national forest recreation related employment by the year 2000. These job estimates are based on the effects of over 800 million recreation visits and their associated recreation expenditures and by Forest Service recreation related management expenditures.

174. Question: What back-log of maintenance do you have in your recreational facilities?

Answer: Recreation facilities have accumulated an estimated $818 million backlog while trails adds an additional $267 million in backlog maintenance and repair. Deterioration of facilities and trails are compounding and will continue to increase. Current funding levels are not sufficient to complete the operation and maintenance of all Forest Service sites. In response to OIG audits, the Forest Service is beginning to identify sites that do not meet forest plan standards and initiate action to close them.

The trails program emphasizes repair and reconstruction work to reduce the current backlog, now exceeding $267 million. Substandard trails caused by age, heavy use, poor location and lack of maintenance have resulted in management decisions to allocate 90% of all trail dollars to such work as bridge replacement, trail relocation, tread replacement, drainage structures, and barrier removal.

175. Question: How do you think we will ever make progress in making-up this back-log? What are the impacts of deferring this maintenance?

Answer: In order to meet the escalating demand for outdoor recreation, while supporting efforts as a country to address the Federal deficit, the Forest Service is developing contemporary tools and systems in order to provide quality recreation benefits while providing ecosystem protection and enhancements.

National forest recreation demands are at an all time high, and the RPA projects use to increase 40 percent by 2040. With its aging infrastructure and growing backlog, the Forest Service must seek private entrepreneurs and partnerships.

Alternatives already being used include expanding use of private sector investment in construction, operation, and maintenance of NFS developed sites; phasing out sites that receive lower use, have high costs to operate and maintain, and have negative affects on ecosystems; and, expanding use of concessionaire services for operation and maintenance. All have helped. Enhanced fee collection and retention authority for site operation is a legislative solution which would assist in addressing this funding shortfall.

The following highlights some contemporary solutions implemented in order to respond to the increasing public interest and demand for outdoor recreation. These strategies bring together private investors, and public land, collectively working together to provide customer services:

Public/Private Ventures: Joint private- and public-sector (Forest Service) investment in recreation facilities and/or services on NFS lands, offer both viable business opportunities to private industry and a quality recreation experience for the American public. Private capital is used to construct new facilities, or rehabilitate existing Forest Service ones, for which there are no appropriated funds. The Forest Service can contribute by providing land, existing facilities, or infrastructure for the venture.

Expanding the use of Concessionaires: Over the past decade, approximately 70 percent of the Agency's developed recreation facilities have been moved from Agency operated and maintained to concessionaire operated and maintained. This has been in response to declining budgets and the inability to adequately operate and maintain sites to quality, health, and safety standards with Federally appropriated funds. Application of the concessionaire process provides such standards to be achieved by a private operator of the public facility who establishes a fee structure for site operations and maintenance keeping the facility open to meet public demand and keeping the structures maintained to standard.

176. Question: How have you changed your recreational partnerships the past few years? What is the result of this increased partnership? How much non-federal money are you bringing in to help with your programs? How is service to the public affected?

Answer: With advent of the Challenge Cost-Share program and other enabling authorities in the 1980's, opportunities for establishing partnerships have increased. The Forest Service has embraced the concept of forging partnerships to provide better customer service and expand recreational opportunities on the National Forests. It is a cornerstone of "America's Great Outdoors", the Agency's National Recreation Strategy. The Recreation Partnership Program is a key factor in the delivery system for quality recreation products and services. Without it, quality and number of opportunities would decline.

In 1993 the Forest Service had 12,000 agreements with 6,400 partners. The estimated total commitment to collaborative projects in 1993 was over $780 million with partners providing a 58% share. In recent years, as budgets have declined, the amount of Agency resources available to initiate and manage partnerships have also declined.

This may represent a peak in Forest Service capability to take advantage of partnerships in delivering recreation products and services to the public.

The recent creation of the National Forest Foundation, a congressionally designated not-for-profit organization, created to support the Forest Service mission may expand Forest Service capability through partnerships.

177. Question: What is the current status of your visitor center program? Are these facilities given much use? How much does it cost to staff these facilities?

Answer: The Forest Service currently has 58 major visitor centers. Additional visitor centers are in various stages of planning or construction: Lewis and Clark in Montana; Northern Great Lakes Visitor Center in Wisconsin; Columbia River Gorge Discovery Center in Oregon and Hudsen Meng in Nebraska. All of these upcoming centers involve significant financial contributions from state or local partners.

Although these centers provide a valuable tool for educating and providing interpretative information to millions of Americans, they are not without significant annual operation and maintenance costs. In addition, budgetary resources have been unable to keep pace with maintaining the existing recreation infrastructure, resulting in a $818 million facility backlog. To address this concern, the focus of the Forest Service Recreation Facility program for the past several years has been on rehabilitation and reconstruction versus new construction starts. This is evidenced by a moratorium on new visitor facilities instituted in February of 1994. (The 4 centers stated above were specifically exempted from the moratorium because they were currently under construction or had received congressional authorization.)

Visitation to centers varies by size and location. Visitor Centers near Mt. St. Helens average 520,000 to 685,000 visitors per year. It is anticipated that the Visitor Center at the El Portal Tropical Forest Center in Puerto Rico will host about 1 million visitors per year. Smaller visitor centers may be open only during summer months and average only 60,000 visitors per season.

Total current staffing costs are approximately $8.7 million annually. This is the cost for staffing only and does not include maintenance costs such as supplies, equipment, utilities and new exhibits. It should also be noted that staffing costs have been kept at this very low level through the extensive use of Volunteers, partnerships, Interpretive Associations, and Older Americans (SCSEP) Program.

178. Question: If the Forest Service loses the Senior Community Service Employment Program grant, how will that affect Forest Service programs, especially the recreation programs? How will this affect the workers in the program? What other employment options are there for these people? What has been the Forest Service record at placing

these people in non-federal employment after their tour with the agency? Are these workers replacing normal agency employees? How many years do the SCSEP employees work with the Forest Service?

Answer: The impact to the Forest Service on losing the program would be tremendous. The value of conservation service performed by the enrollees is over $40 million annually. Over $20 million of this benefits the recreation program.

Millions of dollars worth of work would not be done. The staggering backlog of infrastructure maintenance needs would escalate. Recreation facilities and resources such as day-use areas, campgrounds, and visitor information centers would have to reduce hours and/or days of operation, shorten seasons, and/or close. Environmental education/interpretive sites and programs would be reduced. Last year alone, the national forests hosted nearly 830 million visits, and the SCSEP enrollees played a significant role in providing a quality outdoor recreation experience to the public.

The impact on the enrollees would be significant. Most SCSEP enrollees are attempting to "get by" on an average of $800 per month when you combine their Social Security with their SCSEP wages. The lack of other employment opportunities could potentially place discontinued enrollees onto welfare rolls. This would impact on the 69 counties in 18 States where enrollees are currently sponsored. Not only would the enrollees lose supplemental income, but their quality of life would immediately suffer. They would be without any means or hope of upgrading skills and returning to the labor market. Many have little access to services such as health and wellness programs and annual physicals.

The Forest Service is making improvement toward accomplishing the placement goal of 20 percent. Accomplishment has moved from 16.41 percent placement in program year 1992 to 18.4 percent placement in program year 1994. SCSEP enrollees do not displace agency employees, but accomplish work that otherwise would go undone. The average tenure of a SCSEP enrollee in the Forest Service is five years.

WILDERNESS

179. Question: What is the wilderness system now for the Forest Service? How much of the wilderness related work called for in the forest plans is funded and being completed?

Answer: There are over 34 million (34,576,684) acres in the Forest Service Wilderness Preservation System. We estimate that 50-75% of the wilderness management costs contained in Forest plans is currently being funded and completed.

180. Question: What is the use of the various wilderness areas? For the recently established wilderness areas, how has use of the areas changed now that they are officially in the wilderness system?

Answer: Total wilderness recreation use in FY 1995 was 13,862,800 visits. Use by individual wilderness is not readily available, so it would be difficult to determine if newly designated wilderness areas were experiencing a significant change in the number of visitors after designation. As far as the type of use occurring within a wilderness area, the areas are managed according to the Wilderness Act which prohibits the use of motorized and mechanized equipment except under limited circumstances.

181. Question: What coordination activities do you have for wilderness management with states, counties and with other Federal agencies?

Answer: There is an interagency memorandum of understanding with the Department of Interior to coordinate wilderness management activities, including those at the Arthur Carhart National Wilderness Training Center and the Aldo Leopold Wilderness Research Institute. We work with State fish and wildlife agencies under the auspices of the "Policies and Guidelines for Fish and Wildlife Management in Wilderness and Primitive Areas" developed jointly by the Forest Service, Bureau of Land Management, and the International Association of Fish and Wildlife Agencies. We work closely with local governments concerning law enforcement and search and rescue issues.

182. Question: To what extent are wilderness areas being damaged from overuse? What is the cost of your management and restoration programs that deal with this problem? To what extent are people being turned away from wilderness areas because they are overused?

Answer: Recreation use of wilderness is increasing. Total use of the National Wilderness Preservation System has increased steadily since passage of the Wilderness Act in 1964. About one-half of all wildernesses are sustaining or increasingly experiencing heavy use. Most other wildernesses are experiencing growth in visitation, even if they experienced a period of declining use sometime in the past.

National Forest Service policy is to ensure wilderness is protected to at least the condition which existed when it was established, or at the time baseline information was gathered. Further, 36 CFR 293.2 states that wilderness will be made available for human use to the optimum extent consistent with the maintenance of primitive conditions. For instance within the Pacific Northwest Region, some national forests have begun to document the degradation of wilderness resource values which result from inappropriate or excessive visitor use. While wilderness recreational use is not evenly distributed, many areas receive heavy use such as entry points, trails and campsites. Wildernesses closer to large populations are receiving significant use from day users (over 80%), and in some wildernesses, excessively high visitation has eliminated any opportunities for solitude or a primitive recreation experience during the summer season. Excessive visitation also breaks down trails, enlarges camping spots, changes vegetation and wildlife patterns, and causes sanitation and water quality problems. The numbers of visitors is correlated to changes on the ground within the wilderness. Education alone has been insufficient to prevent or correct negative changes.

National advice for wilderness stewardship is to incrementally implement restrictions to solve problems caused by visitor use. Wilderness programs are designed with less restrictive actions, such as visitor education, campfire restrictions, and sanitation measures. More impacting visitor restrictions, i.e. limiting numbers of visitors, are considered only after other measures have been taken. Even then, rather than turn recreationists away from wilderness, they are offered alternate wildernesses or the option of changing the timing of their trip. However, we do use reservation and permit systems to manage use at some wilderness areas and in some cases to institute site specific closures to allow for recovery and rehabilitation.

We currently do not track wilderness costs by these categories (management and restoration). In order to extract that information from all Regions for all wilderness areas would require significant staff resources. Specific individual site information could be made available upon request. In general, the costs of management and restoration vary greatly between wilderness areas, depending upon the size, complexity, restoration needs, and use.

183. Question: What is the rationale for changing the organization so wilderness becomes a separate and new staff? Would this change be reflected nation-wide? What would be the cost of this change if it is implemented at the field level?

Answer: The Agency proposed to increase the emphasis on wilderness by creating a Director of Wilderness which recognizes that wilderness encompasses more than just use for outdoor recreation. Included in the Wilderness resource as defined in the Wilderness Act is a full range of multiple uses e.g. recreation, fish and wildlife, soil, water and air, range, mining, cultural resources and serves as a benchmark for research on the gene pool for flora and fauna. Wilderness constitutes 18 percent of National Forest System lands and because of the high visibility, complexity and magnitude of the system the National Leadership Team concluded a separate Director of Wilderness was needed.

The change was not proposed to be reflected nation-wide. In most cases Regional, Forest, and District staff persons are responsible for all Congressionally designated areas. Most also have other responsibilities in addition to Congressionally designated areas. The change was not to be implemented at the field level.

184. Question: What is happening at the wilderness institute? How much does this facility cost?

Answer: 1996 is the first year that the Arthur Carhart National Wilderness Training Center is fully staffed with representatives from all four agencies that manage National Wilderness Preservation System Lands: the Forest Service, National Park Service, Fish and Wildlife Service, and Bureau of Land Management. The Carhart Center is now completing a Nation-wide survey of the training needs of wilderness managers. With this valuable information, the Center staff will focus on the priority needs for employees of all four agencies.

Current projects underway at the Carhart Center include a Wilderness Resource Advisor Toolkit, an Outfitter and Guide Administration Training Module, a Small Site Restoration Training Module, a High School Wilderness and Land Ethic Curriculum, the Leave No Trace Program, the Wilderness Correspondence Courses, as well as providing continued support to the Professional Guide Institute to further their efforts in educating backcountry guides. We continue to take our training sessions to locations where they are most needed and to answer requests for information on Wilderness from agency personnel and the public.

The total FY 1996 budget for the Arthur Carhart National Wilderness Training Center, including all support, operating costs and salaries, is shared by the four wilderness management agencies and totals $500,000. The Forest Service portion of this budget is $250,000.

POTENTIAL OF REC-FEE DEMO PROVISION

185. Question: Are you ready to implement the recreational fee demonstration program in the FY 1996 bill?

Answer: The Forest Service is ready to begin to implement the recreation fee demonstration program. Selected demonstration projects are currently being finalized. A few proposed demonstration areas may be ready to begin charging fees this fiscal year but the majority of the demonstration areas will use the reminder of this year to prepare public communication plans, develop fee strategies and prepare the needed infrastructure for implementation at the beginning of the next recreation season (FY 97).

186. Question: What will be the impacts to your programs? Please provide a table of the sites you expect to include?

Answer: The purpose of the demonstration/test is to determine our capability to increase cost recovery from various innovative recreation related fees. The provision of the Bill that allows the units generating the fees to retain most of the fees for use on the fee generating unit will enhance the amount of resources available to manage the recreation programs in an increased quality manner.

Significant funding shortfalls have resulted in a backlog of unmet maintenance needs and reduced visitor experience quality. The potential to increase financial resources through increased fees and on the ground retention should help to reduce the funding shortfall. A critical assumption is that historic appropriation levels will not be reduced as fee collections increase.

The list of demonstration sites/areas/projects is currently being finalized. Once completed we will make it available.

187. Question: How will you provide for a full testing of the feasibility of user-generated cost recovery for the operation and maintenance of recreation areas or sites and habitat enhancement projects on NFS land?

Answer: A wide variety of demonstration sites, areas and projects will be included in the selected list. Single sites to whole Forests (including one multi-Forest) will be included. Many different types of recreation opportunities and landforms will be used. Larger Recreation complexes, single campgrounds, Visitor Centers, Caves, Motorcycle recreation areas, National Recreation Areas, Wilderness areas, etc. will all be used. These areas will be located across the National Forests and the United States (15 or more States). We will encourage selected units to be innovative in developing various cost recovery and fair market value pricing strategies. We will also be requiring that each demonstration unit have a public communication plan to both inform the public of fee proposals but also to establish feedback mechanisms for the fee paying public to comment on the fairness and effectiveness of any new fees.

We anticipate a wide variety of cost recovery accomplishment from the selected sites/areas. We need this diversity to enable us to determine what types of sites/areas have higher cost recovery potential than others. The delivery of on-the-ground results from fees collected is also going to be documented. Fee paying publics will demand increased services and improved quality experiences for the increased amounts they are paying. We need to deliver and build trust that their fees make a positive difference.

188. Question: If you succeed in obtaining substantial funds from this demonstration, will this provide the Congress an opportunity to reduce your recreation, habitat enhancement or funding for other programs?

Answer: No. Any appropriation reductions, that offset new fees collected, will eliminate the opportunity for the Forest Service to provide improved quality experiences to the fee paying public.

However, some additional return to the treasury will occur because the Bill requires that 104% of previous fee collections be returned to the Treasury and this amount continues to increase at 4% annually during the 3 year test.

The Fee Demonstration effort will test just a few of the potential list of fee sites on the National Forests. The test is intended to give insights on how a larger scale effort might work. It would be premature to base any assumptions of what could be recovered from an Agency wide application until after the fee demonstration results are completed.

TRAILS

189. Question: What is the linkage between recreational use of the national forests and grasslands and the maintenance and construction

of trails?

Answer: Although there is a very distinct relationship, there is not a direct linkage between recreational use of the national forests and grasslands and the maintenance and construction of trails. To the extent that recreational use effects the allocation of recreation dollars to various units of the national forests, more funding for the maintenance and construction of trails does go to areas of high recreation use. The location, type and magnitude of use, and weather conditions all affect the need for trail maintenance and reconstruction. Other factors such as the topography and rockiness, type of use (foot traffic versus recreation vehicle use) and accessibility (wilderness versus accessible by motorized equipment) also affect costs and the relationship of recreation use to maintenance and construction funding.

30 million Recreation Visitor Days are spent each year on national forest trails. (This is 12 percent of the total use of National Forest System lands.) The Forest Service's trail system is larger than all other systems in the Nation combined, with over 125,000 miles. To adequately maintain this system requires on-the-ground operation and maintenance costs of $47 million per year.

The Forest Service has an estimated $267 million trail maintenance and reconstruction backlog. In order to address this, the primary focus of the trail reconstruction/construction budget has been on reconstruction, with over 90% of the budget line item targeted to rehab and reconstruction of existing trials.

190. Question: What are you doing to encourage partnerships in trail maintenance?

Answer: National agreements with American Hiking Society have been implemented to recruit volunteers to participate in National Trails Day work projects and to participate in Helping Out in the Outdoors, and Volunteer Vacation projects on National Forest lands. The Chief has issued direction to the Regions to make use of agreements with trail organizations and the various youth work programs. The National Forest Foundation entered into a Challenge Cost Share Agreement to match $500,000 in trail reconstruction dollars for projects on National Forest lands. National Forests have also made extensive use of the Adopt-A-Trail program targeted to their specific needs and local interest groups.

191. Question: How much do partners bring to the government in trail partnerships?

Answer: Partnerships with various trail clubs have helped stretch limited dollars available for trail maintenance. The Partnership for the National Trails System recently compiled figures for the four National Scenic and Historic Trails managed by the Forest Service: The Continental Divide Trail, The Florida Trail, The Pacific Crest Trail and the Nez Perce Trail. 83,290 Volunteer Hours with an estimated value of $916,190 dollars and financial contributions of $321,210 were recorded for these 3,833 miles of trail. Nationwide, volunteer hours and contributions made by partnerships with the trails community amount to many millions of dollars in value.

192. Question: What is the Forest Service doing in the national heritage trail system? Does this trail designation aid the public in understanding and using the trails?

Answer: The Forest Service is not currently involved with any national level trail designation titled "heritage trail". The National Trails Act includes: Scenic, Historic, Recreation, Side and Connecting Trail. All other trails are categorized as "other system trails".

The designation of trails under the above categories places the trail under The National Trails System Act (P.L. 90-543). This act provides authorities not available to other trails. Trails designated under one of the above categories are given national exposure.

193. Question: What is the back-log in trail maintenance? To what extent is the trail construction funding going in to new trail construction or is it going into fixing and reconstruction?

Answer: The backlog of trail maintenance is approximately $267 million. Ninety percent of trail reconstruction/construction funding is used for reconstruction work on existing trails.

RANGE MANAGEMENT

194. Question: Why are you asking for such a large increase in this account?

Answer: The $31 million proposed for Range Management does not constitute an increase when historic funding levels of well over $44 million and expanded workload are considered. The proposal is 30% below the FY 1993-94 average funding of $44.3 million and $18.4 million below the $49.4 million available in FY 1995 before budget restructuring occurred within NFS.

In FY 1995, restructuring of the NFS budget moved nearly $32 million of Range Management funds to the Ecosystem Management budget line item (BLI) with the assumption that all inventory, analysis and monitoring of grazing allotments would be accomplished with Ecosystem Management funds. Allotment analysis work was later defined as project level work to be funded from the Range Management BLI. This left Range Management far short of the minimum funding necessary for a viable program.

At the same time, the range workload increased significantly due to the expiration of over 4,000 grazing permits between 1995 and 1997 and the need to schedule and complete NEPA analyses on 6,886 grazing allotments as mandated by PL 104-19. These new demands on the few remaining program dollars have led to reduced interaction with permittees, inadequate administration on the ground of permitted livestock grazing, compromised stewardship of rangeland resources, fewer riparian acres restored, fewer acres of noxious weed treatments and increased likelihood of successful appeals and litigation. The seriousness of the situation is evidenced by the reprogramming of $16 million into Range Management in FY 1995 and a current request from regional foresters for authorization to reprogram $9.4 million into range in FY 1996.

We are behind now in the schedule to complete NEPA analyses. If historic funding levels are not restored, we will fall further behind in the schedule for NEPA analysis and compliance. This may place permittee's grazing operations at risk. The request should be viewed as a small step toward restoring program viability to Range Management, not a significant program increase.

195. Question: You state that only 5-10% of the grazing allotments will be administered to the agency standard at the requested level. Why is this paper work so important? What is the agency standard?

Answer: The most important aspects of administration are not paperwork but field based activities including working with permittees, conducting on the ground inspections, monitoring and evaluating the effects of grazing, and responding to changed management conditions, often at the permittees request. Permit administration does include paper work, such as issuing grazing permits and taking grazing applications; however, at the proposed level, recent and pending expirations of large numbers of grazing permits require 70% of available funds to be spent on activities related to processing expired permits. Although these activities are required by law or regulation, by themselves they do not meet the agency standard for administration of grazing allotments. The key elements of grazing allotment administration are the ability to determine if resource standards are being met and initiating actions that will achieve the desired standards and meet our land stewardship responsibilities. Following is a description of what is meant by allotment administration to agency standard.

GRAZING ALLOTMENT ADMINISTRATION TO STANDARD

During the fiscal year an Agency employee qualified in grazing permit administration supervises livestock grazing by monitoring, evaluating, and documenting permittee compliance and achievement of applicable resource management standards, and documenting and initiating any needed corrective actions. An allotment may be reported as managed to standard when 1) the responsible manager determines and documents that the permittee is in compliance AND applicable resource management standards are being met, or 2) where the permittee was not in compliance and/or applicable resource management standards are not being met, but all necessary corrective actions have been documented and initiated. The responsible resource manager will use as many of the following or similar activities as necessary to meet perform standard administration: counting livestock; inspection rides with permittees; conducting livestock utilization studies; inspecting resource condition; preparing, modifying or updating allotment management plans or annual operating plans; inspecting range improvements; issuing or modifying grazing permits or grazing agreements.

The consequences of not meeting the agency standard include increased risk of administrative appeals and litigation, poor resource stewardship, potential for resource damage, degradation of threatened and endangered species habitat, and an inability to respond to permittee requests affecting management or requests to construct improvements. An inability to meet our own standards further contributes to a decline in agency credibility among our permittees and the public.

196. Question: How often do your personnel check and monitor the condition on each allotment? How many allotments get no visitation at all during a grazing season? How many are visited only once?

Answer: There are 8,634 active grazing allotments. Under the current 1997 budget proposal, up to 90% of allotments covering an estimated 81 million acres will NOT be administered to standard with adequate monitoring and corrective actions applied as necessary; 20-30% will be administered to a low standard with one visit per year with no follow up or monitoring and corrective actions limited to worst case situations; 60-75% will not be administered at all, i.e. no visits, no monitoring and no corrective actions applied. This is far from an ideal situation.

197. Question: Are deteriorated range conditions exacerbated by your inability to monitor allotments and to administer permits?

Answer: Yes, the inability to monitor allotments and administer permits greatly increases the chances for deterioration of range conditions, riparian areas, threatened and endangered species habitat, and forage producing vegetation in the plant community. Monitoring provides the means to check resource conditions against baseline information and adjust grazing use to achieve resource objectives and land stewardship responsibilities.

198. Question: We hear that you may have re-programmed 9 million dollars in 1996 to address range management needs. What is the situation here with respect to reprogrammings? If the range program is funded at the requested level, do you anticipate a need to request a reprogramming?

Answer: The Forest Service reprogrammed $16 million into range in FY 1995 and is considering the reprogramming of approximately $9.4 million into range in FY 1996. The purpose of the reprogramming is to account for the effects of budget restructuring within the NFS appropriation account in FY 1995 and to allow for the completion of critical National Environmental Policy Act (NEPA) analyses scheduled on grazing allotments in compliance with PL 104-19.

Funds appropriated to the Forest Service for the Range Management program for FY 1993 and FY 1994 averaged $44.3 million. In FY 1995 this was reduced to $18.5 million following a restructuring of the budget activities within the NFS appropriation account. The restructuring resulted in the movement of nearly $32.0 million of Range Management funds to the Ecosystem Management Budget Line Item (BLI), which was an accurate estimate of cost given the definition of work to be accomplished under Ecosystem Management. It was assumed at the time that all inventory, analyses, monitoring and allotment management planning would be conducted within Ecosystem Management funds. Subsequently, however, allotment analyses work was defined as project work to be funded from the Rangeland Management BLI. This shift must now be reflected in the programming of funds.

A detailed analysis indicates that the Forest Service needs about $37 million in Range Management to reflect the correct distribution of funds and maintain a program of work similar to what existed prior to budget restructuring. In FY 1995, reprogramming was done to bring the total budget close to this amount. In FY 1996 Congress increased the Range Management BLI by $8.5 million to $27 million. The reprogramming proposal under consideration for FY 1996 would reprogram an additional $9.4 million into range management to maintain minimum program requirements. Reprogramming in FY 1997 may still be needed to meet range program requirements, but requests would have to be prioritized with critical needs in other programs.

199. Question: What are the riparian management standards that you apply to the nation? What is the overall riparian condition? What can you do to improve this, and what it cost?

Answer: There are no national riparian standards. Taking into consideration the broad diversity of riparian types and conditions, each national forest develops it's own riparian management standards during the forest planning process. These standards may include: the height and amount of residual vegetation required to ensure streambank stability, existing channel stability, water quality, vegetation composition and diversity, fish habitat conditions, or other components of the riparian ecosystem. These are often further refined during site specific planning, such as when developing allotment management plans.

Rangeland riparian "condition" is determined by an area's consistency with standards as described in forest plans. These are referred to as forest plan objectives for riparian areas. Riparian rangelands are generally classified as 1) meeting these objectives, by the likelihood that they can meet them under current management, or 2) not meeting objectives or being of undetermined status if more information is needed to measure compliance with standards. This method gives some perspective on the adequacy of on-the-ground management and the need for further inventory and monitoring. Following is a breakdown of how riparian acreages within grazing allotments were classified for the 1995 reporting period. Only those acres where established management objectives for rangeland riparian vegetation are included. These classifications do not represent compliance with NEPA or other applicable laws:

.9 million	Acres Meeting Forest Plan Objectives
1.6 million	Acres Not Meeting Objectives or Undetermined
2.5 million	Total Rangeland w/ Riparian Vegetation Objectives

The ability to measure and meet riparian condition objectives is also symptomatic of the need for additional NEPA analysis and allotment administration. The Forest Service continues to be subject to legal challenges in any of these cases including those meeting forest plan objectives, if NEPA analyses and allotment management plans have not been completed or it appears that scheduled analyses will not be completed in a timely manner. It could be further argued, that without adequate NEPA analysis to determine condition and trend, acres currently classified as meeting forest plan objectives could deteriorate in the future.

The vehicle for riparian management and restoration is implementation of allotment management plans resulting from scheduled NEPA analysis of grazing allotments. This discussion does not reflect the management complexity associated with the location of an allotment. Rather than acres, the best assessment of workload and program vulnerability is the need for NEPA analyses.

To implement these actions requires funding the Range Program at levels sufficient to meet the requirements of PL 104-19 which directs the Forest Service, "to develop and adhere to a schedule to complete NEPA analyses on all grazing allotments where such analyses are needed." The schedule to complete these analyses was developed using the FY 1996 President's request of $43.5 million as a base figure consistent with historic funding levels. To make significant progress on improving riparian areas will require an appropriation of at least that amount.

The Forest Service Director of Range Management is also leading an interagency effort with BLM to restore western riparian systems to proper functioning condition. The objective is to provide field units with the latest technology for evaluating, restoring and managing riparian ecosystems.

200. Question: How much of the needed work will not get done at the requested funding level? What will be the situation with a 10% reduction?

Answer: Following is an overview of what we cannot accomplish at the requested level:

* 85-90% of grazing allotments will NOT be administered to standard with adequate monitoring and corrective actions applied, monitoring for Endangered Species Act compliance will be limited. 40-50% of allotments should be administered to standard each year.

* 20-30% of grazing allotments will be administered to low standard with one visit and no follow-up or monitoring; corrective action

limited to worst cases. This would be adequate if there were adequate funding for needed follow-up visits, monitoring and implementation of corrective management, and if 40-50% of allotments were being managed to standard.

* 60-75% of grazing allotments will not be administered at all, no monitoring, no visits, no corrective actions. No more than 20% of allotments should fall into this category.

* NEPA analyses will be completed on less than 10% or 200-250 of the 2,516 allotments scheduled for analysis during the 3 year period 1996-1998. None will be completed in 1996; funds in the proposal will be used to complete work started in FY 1996. The schedule required by PL 104-19 will not be met.

* Corrective management to restore deteriorated rangeland will not be accomplished on 1400 allotments that had been scheduled, and will be limited to 200-250 allotments where NEPA analyses are completed.

* Monitoring resource condition and trend will not be accomplished on 70-80% of allotments where it should be done. Monitoring will be limited to 10-25% of allotments.

* Noxious weed treatment will be reduced by 10,000 acres and will be limited to retreatment of trouble spots and new treatments of worst case situations. Total treatments will be 20,000 acres or less with appropriated funds. Funding at historic levels would result in approximately 50,000 acres being treated.

A 10% reduction without reprogramming would most likely result in a reduction in force for range conservationists and may not allow the livestock grazing program to comply with applicable law.

201. Question: Please explain the seeking common ground program? What does this cost? Has the program aided your interactions with the ranching community? How much does this program cost?

Answer: Seeking Common Ground promotes cooperative programs that draw diverse, often conflicting, interests together to make long-term improvements in the West's rangeland ecosystems. Initial emphasis has been on the conflict between big game and livestock- a long-standing issue which has intensified in much of the West.

Projects in seven states have forged partnerships between private landowners, livestock and wildlife interests, and federal, state and local resource management agencies. Each demonstration area combines public participation with scientific management to improve conditions for watersheds, wildlife, livestock and outdoor recreation. These partnerships have greatly enhanced relationships with the ranching community.

In FY 1995, the Forest Service contributed $130,000 to Seeking Common Ground projects. The Bureau of Land Management (BLM) and other partners contributed another $145,000 for a total of $275,000, not including donated labor and materials. The Forest Service has obligated $94,000 for this purpose in FY 1996 and has commitments for $121,500 in contributions from BLM and other partners.

There is considerable support from the livestock industry for this approach to resource management which represents an alternative to highly contentious public grazing debates.

202. Question: There has been a lot of hoopla concerning the problems of noxious, exotic and alien species. Are you doing anything to control these species? What are the negative economic impacts of the problem? Does your response seem commensurate with the scope of the problems as you have portrayed it?

Answer: The Forest Service has a comprehensive noxious weed program which received renewed emphasis in 1996 with implementation of a new agency noxious weed policy and strategy. The program includes activities in prevention, early detection, control, education, and research, with strong cooperative efforts both interagency and with partners and jurisdictional neighbors. The Forest Service is committed to using the Integrated Pest Management approach to noxious, exotic and alien weeds. Treatment of noxious weeds is a very cost and labor intensive process. The current estimates are that 7 million acres of the 191 million acres of National Forest System lands are infested with noxious weeds. Accurate inventories are difficult to achieve since infestations are widespread and not uniform in distribution. Dollar values of noxious weed negative impacts are not available, but all natural resources are affected: loss of diversity, loss of native plant populations, forage reduction, increased erosion,impediments to use of recreational areas, reduction in quality of wildlife habitat, degradation of riparian area, and sometimes physical danger to wildlife, livestock and humans. The problem is so significant that in FY 1995, when appropriations for range management declined by over 65% to only $18.5 million, the agency spent $2.3 million range dollars treating 30,000 acres infested with noxious weeds. An additional $1 million KV dollars were spent, bringing total treatment to nearly 65,000 acres when including funds and labor from all sources.

MULTIPLE USE: WILDLIFE, FISH, WATERSHED

203. Question: What is the economic value of the hunting, fishing, and nature viewing on the national forests and grasslands? How has this changed over the past few years?

Answer: Over 86.6 million activity days were spent hunting, fishing, and viewing on National Forests and Grasslands in 1995. This resulted in local community expenditures of $4.2 billion and over 139,000 fulltime equivalent jobs. These wildlife and fish related recreation opportunities resulted in $3.68 billion in net public benefits. This return only applies to the recreation portion of the Forest Service, Wildlife, Fish and Rare Plant program. Countless other indirect economic benefits are associated with healthy forests and watersheds including: reduced domestic water treatment costs; more stable water supplies; commercial and subsistence harvest; habitat for nearly 30% of all federally listed species; continued soil productivity; protection of wetland and riparian habitats; and harvestable surpluses of fish and wildlife.

The Forest Service Draft 1995 RPA Program states that wildlife and fish viewing and photography have increased at a substantially greater rate than hunting and fishing, and these activities are expected to double by 2045. The number of big game hunters has generally increased during the last 20 years, although at a declining rate. The number of small-game hunters has also shown recent declines. But recreational fishing has consistently increased over the last 20 years. Increased use, especially in aquatic and riparian zones, will require additional investments in roads, trails, and campgrounds to supply quality recreation experience while protecting ecosystem health and biological diversity.

204. Question: How many people come to the NFS for hunting and fishing? Are there other areas where these activities could take place if habitats declined on the NFS?

Answer:

Returns on Investments in Fish, Wildlife, and Rare Plant Resources

	Activity Days (millions)	Rec Expends on FS Lands (millions)	FTE Jobs	Net Public Benefits (millions)	FY95 Budget (millions)
Wildlife	16.15	$623.71	18,971	$767.92	$31.95
Fish	37.13	$1,829.5	64,865	$1,851.62	$41.93
Viewing	33.35	$1,815.7	55,237	$1,055.92	[1]
TES[2]					$24.75
	86.63	$4,268.91	139,073	$3,675.46	$98.63

[1] Viewing projects and activities are funded via wildlife, fish, and TES Expanded Budget Line Items.

[2] Activities related to TES are captured in the viewing component of the program

Forest Service lands provide significant, high quality, public hunting, fishing and viewing recreation. Loss of FS recreation would result in increased use on other Federal, State, and Private lands. Private lands have limited access, are often located outside of the key, prime habitat areas, and often charge fees for access. Federal and State lands are already congested and reduction of Forest Service lands would compound this problem and lead to a low quality recreation experience.

205. Question: How many forest users come largely for the wildlife, fish, or plant viewing aspects of visitation?

Answer: Included in Question 204 above

206. Question: What is the role of the national forest system in providing some of the nations habitat for wildlife fish and rare plants?

Answer: The Forest Service manages 156 national forests and 20 national grasslands. These 191 million acres represent a wide variety of landscapes and ecosystems ranging from subalpine tundra to tropical rainforest. Aquatic habitats vary from mountain streams to low country swamps. More than 2 million acres of lakes, ponds and reservoirs and 200,000 miles of streams shelter a myriad of aquatic life. These diverse lands and waters provide home to more than 3,000 wildlife and fish species and 10,000 plant species. With help of our many partners, most species are thriving under the care and stewardship of the Forest Service

However, 283 species are in need of protective measures provided by the Endangered Species Act. The Forest Service plays a crucial role in the conservation of these species and is dedicated to taking appropriate management action to protect and improve their habitat. Additionally, the Forest Service has designated about 2,500 species as sensitive. This is our "early warning system" which encourages the application of management activities designed to prevent the need for listing species under the Endangered Species Act. Essentially it is a preventative strategy and allows for management flexibility in all other Forest Service programs.

Conservation of threatened and endangered species is not just a legal mandate, it also supports economic and social values. By recovering and protecting threatened, endangered, and sensitive species on our national forests, we ensure that our forest visitors will always have the opportunity for viewing and learning about our biological heritage. It gives Forest users the chance to: witness the majestic soaring of a peregrine falcon or the awesome power of the grizzly bear; thrill at the howl of a gray wolf; encounter the fragile blossoms of a swamp pink during a woodland walk; experience the dogged determination of a chinook salmon making its way thousands of miles upstream to spawn; or benefit from a new life-saving medicine.

Some tangible and direct benefits of the conservation of species include:

Good water quality for current and future generations by protecting populations of freshwater molluscs which are among are the best indicators of water quality in our streams and wetlands;

Additional tourism revenue and economic benefit estimated to be worth $7-10 million, through the restoration of gray wolves to the Greater Yellowstone Ecosystem;

Increased hunting opportunities and associated economic benefits by improving quail habitat via management for the Red-cockaded woodpeckers;

Public health because more than half of the medicines used today can be traced to wild plants. For example, the use of chemicals found in the Pacific yew, a species found in older forests of the Pacific Northwests to treat cancer;

Genetic diversity through the conservation of native plants helps improve many important cultivated plant varieties by improving their resistance to pests, and increasing crop tolerance to flood, drought, and frost;

Local economics can be increased where a thriving colony of bats eat thousands of insects nightly, reducing agricultural crop loss due to beetles, moths, and their larva; and

Increasing fishing opportunities and providing economic benefits through the restoration of species such as the Apache trout. This trout was once so abundant in its natural habitat that an angler could easily catch 100 fish in an hour.

207. Question: What has been happening to the challenge cost share program? How much non-federal money does this bring in? How many of these habitat projects would not be completed without this partnership?

Answer: The Challenge Cost-Share Program is a unique venture in which the State and private sectors share in both the management and cost of Federal wildlife and fish habitat improvement programs. Since 1986, total partnership contributions of labor, materials, expertise and cash have approached $132 million, more than matching Forest Service monetary contributions of more than $95 million. Combined contributions to the Challenge Cost-Share Program for wildlife and fish projects since 1986 have exceeded $227 million.

Through habitat improvement projects and the unparalleled support of thousands of partners, many species have returned to habitats once abandoned. Fragile plant habitats have been identified and protected. Wetlands have been improved by the construction of nesting islands and platforms. Fisheries have benefited from improved cover, construction of fish ladders and barriers, and restoration of watersheds.

The following table shows, by year, a break-down of Federal and partnership contributions to the Challenge Cost-Share Program for wildlife and fish habitat improvements.

YEAR
(Dollars in Thousands)

	1986 -1989	1990	1991	1992	1993	1994	1995	TOTAL
Partners	18,350	12,338	19,341	15,173	19,683	21,021	26,422	132,328
FS	11,361	9,941	11,937	11,512	14,222	18,560	17,929	95,462
TOTAL	29,711	22,279	31,278	26,685	33,905	39,581	44,351	227,790

In FY 1996, $15 million were appropriated for the Challenge Cost-Share Program for wildlife and fish habitat improvements. The FY 1997 budget shows $15.5 million in appropriated funds for this program. The success of the program is measured, in part, by the receipt of matching contributions from conservation groups, private enterprises, individuals, and other public agencies.

208. Question: How important is threatened and endangered habitat management to maintain or restore the rare species?

Answer: Habitat management for threatened and endangered species is crucial to maintaining and resotring those species and usually results in benefits to many other species at the same time. The sooner listed species are restored, the sooner they can be delisted as threatened or endangered. Habitat management to restore and maintain healthy populations of wildlife, fish, and plants ultimately means there will be fewer conflicts with other land uses.

During 1995, a variety of activities were completed to improve and inventory threatened, endangered, and sensitive (TES) species habitat. These include the following:

Habitat Restoration and Enhancement: Restoration and enhancement is the largest focus for TES habitat improvement. In 1995, 685 miles of stream were improved for a variety of aquatic TES species, and over 270,000 acres of habitat, both terrestrial and lakes, were enhanced for a variety of species. This included 1,609 acres for aquatic species, 22,090 acres for terrestrial species, and 1,757 acres for rare plants and botanical resources.

Habitat Improvement Structures: Over 9,800 structures were completed to improve TES habitat, including such things as:

- Constructing barriers in streams to prevent upstream movement of exotic fish into native fish habitat.
- Creating ponds to provide future habitat for sensitive wetland species.
- Placing nest structures in trees for red-cockaded woodpeckers.
- Establishing artificial spawning substrate for Little Colorado spinedace.

- -- Nesting platforms for double-crested cormorants, a sensitive species.

Habitat Inventory: Inventories provide important information on species distribution and use of habitat. Inventories were completed on 17,000 miles of stream and 11,259,548 acres of lakes and terrestrial habitat. Featured species and habitats included:

- -- monitoring bull trout populations
- -- using baited track stations to determine the presence of elusive species such as wolverine and lynx
- -- inventorying potential Arizona Willow habitat to identify new occurrences of the willow
- -- inventorying streams and forested areas to determine distribution and abundance of rare amphibians
- -- using radio telemetry to monitor Queen Charlotte Goshawks.

Education and Viewing: Over 2,900 education presentations related to TES species were made during 1995, reaching nearly 384,000 people. Interpretive displays were developed and placed at over 40 sites. Multi-media products such as brochures, news articles, and videos were developed and distributed, reaching an estimated audience of 885,000 people. Examples of information conveyed includes the following topics:

- -- Grizzly bear awareness to reduce bear/human conflicts.
- -- Forest sponsored tours to view Columbia Sharp-tailed Grouse courtship dancing grounds.
- -- Installation of an interpretive display on bats

Partnership Projects: Partnerships contribute significantly to the efforts of the Forest Service's TES program. In 1995, over 1,182 activities were completed with the help of state, tribal, industry, and private partners. Approximately 37% of all wildlife, fish, and rare plant Challenge-Cost Share projects benefited TES species. These cooperative efforts helped the TES program by supporting the following:

- -- 55% of the stream inventories for TES habitat
- -- 27% of the lake and terrestrial inventories for TES habitat
- -- 21% of the TES structures constructed
- -- 33% of the TES education presentations, and
- -- 50% of the TES interpretive sites constructed.

209. Question: What additional species may end up causing problems for Forest Service programs in the near future? What can you do to help reduce or stop these problems?

Answer: The Forest Service does not believe that species "end up causing problems for Forest Service programs". Habitat management for wildlife and fish is one of the principle mandates of our agency. The health of wildlife and fish populations, and especially those which are threatened, endangered, or sensitive, is often an indicator of the overall health of ecosystems and their ability to provide a variety of resources on a sustained basis. For some species the national forests are a refuge from human encroachment into surrounding private lands.

Management of these species is a Forest Service program that is a part of our overall multiple use mandate. Thus the key question of concern is: "What activities or changes in the function of native ecosystems may cause problems or are already leading to the decreasing populations of native flora and fauna, thus degrading natural systems upon which human health depends?"

The Forest Service sensitive species program and ecosystem managment direction will help circumvent the need to place increased emphasis on one particular species. As well, the rapid development of conservation strategies under the interagency Imperiled Species Memorandum of Understanding provides the best approach to answering either question. This is explained in further detail in the response to question 212, below.

210. Question: How bad are the problems for anadromous fish on Forest Service lands? Are your projects doing any good? Will these fish problems result in impacts to your other programs?

Answer: The Forest Service manages about one-half of the remaining freshwater anadromous fish spawning and rearing habitat in the lower 48 states and more than one-quarter of such habitat in Alaska. In 1991, the American Fisheries Society published the results of an evaluation of the status of more than 400 stocks of Pacific salmon, steelhead, and sea-run cutthroat trout found in California, Oregon, Idaho, and Washington (Nehlsen et al. 1991). Approximately 24% of those stocks were declared "extinct," 27% declared "secure," with the remaining 49% at some level of "risk of extinction." About 170 of the 214 "at risk" stocks are associated with National Forest System lands.

The reasons for the decline of Pacific salmon and steelhead in National Forest habitats vary by species and geographic area. The depressed status of the stocks reflects the interaction of inherently variable environmental conditions (e.g., oceanic productivity, near-shore environment, and weather patterns) and a variety of management activities (e.g., hydro-electric development and operation, fish harvest, hatchery interactions, and habitat degradation).

The Forest Service, through development and application of comprehensive aquatic conservation strategies -- such as included in the President's Forest Plan and PACFISH -- has taken action to arrest the degradation of national forest habitats and initiate their restoration. Although these strategies are so recent that there are inadequate monitoring results on which to base conclusions, we are confident these protection and restoration measures will provide watershed and habitat conditions which contribute to recovery and sustained natural production of Pacific salmon and steelhead. Evidence of the success of watershed/fish habitat restoration measures is emerging in the Pacific Northwest following record flood events this past winter. There are significant differences in the amount of fish habitat damage between watersheds where restoration projects were completed in comparison to those watersheds where restoration needs had been identified by not yet implemented.

As an agency we are committed to providing multiple benefits for people within the capabilities of ecosystems. In some instances, conserving anadromous fish resources will result in reduced outputs of other natural resources such as timber, livestock, and minerals. However, promoting the sustainability of ecosystems by ensuring their health, diversity, and productivity, provides present and future generations an opportunity to reap a wide variety of benefits from national forest system lands.

211. Question: It appears that the policy of the Administration is to try to protect threatened, endangered and sensitive species on federal lands as much as possible so as to minimize effects on private or state lands. What is the Forest Service policy on this matter? How does this impact the importance of the habitat conservation and restoration work done by the TES programs?

Answer: Our policy on conserving threatened, endangered, and sensitive species management is directed by law and regulation. The Endangered Species Act (ESA) and the Resource Planning Act of 1974, as amended by the National Forest Management Act of 1976, are the primary laws we follow to protect species. The Multiple Use Sustained Yield Act of 1960 and the Resource Planning Act of 1974, as amended by the National Forest Management Act of 1976, in concert with the Endangered Species Act, define the breadth of our conservation responsibilities.

Forest Service authority to manage for multiple uses is found in the Multiple Use Sustained Yield Act of 1960 which states that the Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the National Forests for multiple use and sustained yield. In addition, the Act states that

> "It is the policy of Congress that the National Forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes."

This is to be accomplished

> "without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or greatest unit output."

The Endangered Species Act of 1973 was enacted to

> "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species."

Section 7 of the Endangered Species Act requires federal agency consultation with the Fish and Wildlife Service and National Marine Fisheries Service to carry out species conservation programs to ensure that agency actions or prospective actions do not jeopardize the continued existence of any listed or proposed species for listing or result in destruction or adverse modification of any designated or proposed critical habitats.

The National Forest Management Act of 1976 requires the Forest Service to develop, maintain and revise plans for units of the National Forest System and

> "assure that plans...provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives....

Taken together, these laws provide the basis and authority for the Forest Service programs I will now describe. Many, perhaps most, of the costs associated with carrying out the requirements of the Endangered Species Act are necessary to meet agency obligations under the Multiple Use Sustained Yield Act, National Forest Management Act and the cumulative effects provision under the National Environmental Policy Act.

The threatened and endangered species program exists to assure protection and conservation of species (and the ecosystems on which species depend) while providing and contributing to the sustenance of other uses such as forage for livestock, trees for wood products, recreation opportunities for hunting and fishing, wilderness and bountiful clean water for on-Forest and downstream use. To this end, consideration for threatened, endangered and sensitive species is interwoven in all aspects of Forest Service activities.

America's population is increasing, we will live more places, use more resources, and travel more widely. This puts pressure on public and private lands. Real estate development, food and fiber production, and non-renewable resource use will increase in response to these pressures. Most private landowners are not guided by a multiple use mission nor do they have the same legal obligations to protect natural resources as the federal land management agencies.

The Forest Service policy remains unchanged, however if threatened and endangered species become more at risk because of activities on adjacent private lands additional protection may be needed. Habitat conservation and restoration work would become much more important.

212. Question: What work is the Forest Service doing to minimize habitat trends that may lead various plant and animal species to federal listing?

Answer: Managing to protect and conserve species is a part of the agency's multiple use mandate and our mission under the National Forest Management Act. The Forest Service will proceed with carrying out this mission with an ecological approach to our stewardship responsibilities. This is not always easy. A key program that assists the agency in fulfilling these responsibilities is the sensitive species management program.

The Forest Service has designated about 2,500 species as sensitive. This is our "early warning system" which encourages the application of management activities designed to prevent the need for listing species under the Endangered Species Act. It maintains management flexibility and allows for preventative measures so that costly and possibly restrictive action will not be required.

In 1994, an agreement called the "Imperiled Species Memorandum of Understanding" was signed between the Forest Service, National Park Service, Bureau of Land Management, and the U.S. Fish and Wildlife Service. More agencies are expected to join this effort. By signing, the agencies agreed to work together more cooperatively and effectively to prevent the need for further listings of species. Resources, databases, and specialized skills will be shared. This MOU provides the unique opportunity for coordination and sharing of inventory and monitoring efforts, and provides for the joint develoment of conservation assessments, strategies and agreements. To date, the implementation of this MOU has been limited because of funding reductions in the Forest Service threatened, endangered and sensitive species programs.

A Memorandum of Understanding called the "ESA Implementation Memorandum of Understanding" was also developed between the Forest Service, Environmental Protection Agency, Federal Aviation Administration, Department of Defense, Coast Guard, Army Corps of Engineers, National Marine Fisheries Service, Bureau of Reclamation, Federal Highway Administration, Department of Energy, Minerals Management Service, and the Office of Surface Mining. Its purpose is to increase effectiveness and streamline interagency cooperative efforts regarding Section 7 consultation and implementation of the ESA with an express purpose of cooperatively facilitating recovery of threatened and endangered species and ensuring an overall increase in organizational effectiveness. The level of implementation depends on funding.

The Native Plant Initiative, developed in 1995, also provides a variety of new opportunities for plant conservation. It is a Memorandum of Understanding between nine federal agencies and 50 formal cooperators consisting of state agencies and conservation groups. The focus of this initiative goes beyond endangered and rare plants, and seeks to explore economic values, medicinal and pharmaceutical uses, opportunities for ecotourism, and forage enhancement, and to expand awareness and cooperation in the management and utilization of our botanical resources. Implementation has been slow due to limited funding.

213. Question: What are some of the significant habitat conservation planning activities that you worked on during FY 1996 and FY 1995.

Answer: During FY 1995 and 1996 the Wildlife, Fish and Rare Plants program provided technical expertise for the following habitat conservaton planning activities:

Inland Fish Strategy

Conservation agreement for the Arizona Willow

Interior Columbia Basin Ecosystem Management Project

Southern Appalachian Mountains Assessment

Mexican Spotted Owl and Northern Goshawk Forest Plan amendments in Arizona and New Mexico

Great Plains ecosystem assessments

214. Question: What habitat enhancement activities do you intend to work on as a result of the recreational fee demonstration project, Section 315 of the FY 1996 appropriation bill, if it is enacted?

Answer: The Recreation staff is developing the list of potential fee sites and until this list is finalized, no habitat enhancement activities can be identified.

215. Question: What issues are causing problems with regard to western water supply? Are you able to provide both the water needed by communities as well as water needed for instream values?

Answer: Available water supplies in the western states are direct functions of seasonal and year-to-year weather conditions, case law, and changing public values. Droughts in the 1980's and early 1990's caused water shortages in many states which have taken 2-3 years of above average precipitation to overcome. Floods in Oregon, Washington, Idaho since the Fall of 1995 have also created temporary water supply interruptions in affected communities. Rulings in various water right adjudications underway in 8 western states also affect how water supplies are being managed. For example, some state legislatures have been modifying their water rights statutes to provide opportunities for more instream flows for fisheries and wildlife needs through conversion of appropriated rights for irrigation that are no longer needed for that purpose. In these cases, the States and their citizens have decided to make these changes, with very little influence from the U.S. Forest Service.

In reply to the second part of the question, the U.S. Forest Service manages 902 municipal water supply watersheds nationwide, but does not directly manage the water supply itself. If the municipality has its storage reservoir and/or water conveyance pipeline or ditch located upon lands administered by the U.S. Forest Service, there will usually be a special use permit or easement authorizing use of the federal land for that purpose. Clauses in that permit or easement may require the permit holder, in only a few cases out of some 7,000 such permits, to release a small amount of water or maybe to not divert it out of the stream during certain time periods, to prevent injury to a listed fish or wildlife species, to protect public health and safety of the facility itself, or perhaps for some other unique purpose. Through experience, we have found that when a municipal water utility installs new water use meters on customers' lines, total water use tends to decline, enhancing the water supply. This may allow additional use and help partially solve a water shortage problem. Where water usage is monitored, more water is available for both environmental instream and people's needs. Finally, as water pollution is reduced at the source of the contamination, treatment costs are reduced and more water may become available to meet the variety of needs locally and regionally.

RESEARCH APPROPRIATION

216. Question: What are the principle priorities for FY 1997?

Answer: The Forest Service Research organization needs to retain an array of scientific disciplines to address a full range of important natural resource research issues. Our program is described in the 1997 Budget Explanatory Notes for Committee on Appropriations under four program areas: Vegetation Management and Protection Research; Wildlife, Fish, Water, and Air Sciences Research; Resource Valuation and Use Research; and Forest Resources Inventory and Monitoring Research. The Explanatory Notes outline program emphasis in each of these areas.

Major areas of emphasis in the President's FY 1997 Budget include: forest inventory and monitoring; forest and rangeland ecosystem management, including ecosystem use, restoration, processes, health and sustainability; and forest products utilization, especially technology to reduce pollution from processing activities and increase wood supply through conservation, improved utilization and recycling. In addition, we maintain a small urban forestry and agroforestry program and provide scientific input and analysis to large scale ecosystem assessments.

We are screening our research activities through the following six attributes to establish priorities: (1) Does the research involve a clear federal role? (2) Is the research important? (3) Do we have a comparative advantage or is someone else better equipped to do the work? (4) What is the likelihood of success? (5) Is the research cost-effective and are the outcomes worth the investment? and (6) Is there support for the work from our customers and the scientific community? The programs outlined in our Explanatory Notes meet these attributes.

Our long-term strategy is to maintain a program that focuses on our competitive advantage as a natural resource science organization: the ability to launch and sustain an integrated, interdisciplinary attack on complex natural resource problems of large scale. Our strengths include: an interdisciplinary national cadre of well-trained and recognized scientists; an integrated basic and applied science program; highly motivated and trained support staff; an infrastructure of laboratories and scientific equipment located close to the customer; access to large field laboratories, including Experimental Forests and Watersheds, Research Natural Areas, and National Forests; long term data bases and research studies; a network of partnerships within and outside the scientific community and a cooperative agreement program that allows us to martial and coordinate significant resources to address large problems; and a special relationship with the National Forests and State Foresters that provides an opportunity to bring science to bear on natural resource policy and management.

217. Question: What has been the impact of the sizable reduction you had in FY 1996?

Answer: The major program adjustment necessitated by the FY 1996 Conference action (a $15.5 million or 8% reduction from FY 1995) has had and will continue to have major repercussions on personnel and research programs.

An outcome of the FY 1996 Conference action was closure of 5 research laboratories and termination of 17 research work units. In addition, two additional labs and research work units were closed as proposed in the President's budget.

Under the FY 1996 Conference action, we estimated a total of 235 unfunded permanent positions and RIF would probably be necessary. Therefore, we requested and were granted RIF authority for FY 1996 and FY 1997.

We have aggressively pursued options to avoid RIF. Forest Service Research has placed 144 of the unfunded employees, since October 1, 1995. Fifty-three percent were placed within Research units and 21% were placed in the National Forest System. Twenty-five percent resigned or retired. If we were to impose RIF at this time we estimate that less than 100 Research employees would be separated.

We reduced funding for research on: Fundamental Plant Science by 15%; Silvicultural Applications by 5%; Quantitative Analysis of Forest Vegetation by 9%; Multiple-Scale Forest Management Relationships by 9%; Rangeland Ecology by 4%; Forest Operations Engineering by 13%; Basic Ecology of Insects and Diseases by 4%; Prevention and Control of Insects and Diseases by 6%; Aquatic Habitat by 6%; Watershed by 12%; Atmospheric Sciences by 30%; Economics by 3%; Social/Cultural by 3%; Forest Products, Utilization and Processing by 9%; Forest Product Safety and Human Health by 23%; and Forest Health Monitoring by 21%.

The original estimated impact on our scientific research capacity was a loss in several key areas of expertise--in particular: entomologists (18%), physiologists (15%), forest scientists (12%), hydrologists (31%), plant pathologists (10%), and mathematical statisticians (33%), as well as other scientists. In addition, we would lose many of the technicians and administrative employees who provide support for these scientists. We will not know the true loss of capacity until we have completed the disposition of people in the unfunded positions.

We estimate the number of scientists in Forest Service Research will drop below 600 in FY 1996 (in 1985 we had over 900). Almost all of this reduction has been achieved through attrition.

Our capability to provide the information and technology necessary to manage the Nation's natural resources to meet people's needs has been significantly impaired and is critically diminished.

The complexity of natural resource management and policy issues is growing, affecting both public and private lands. However, through program and unit consolidations and other streamlining actions, we have continued to focus on the highest priority research needs.

During the past year, our clients and cooperators have commented on the slower rate of research progress and loss of expertise caused by declining budgets. We have received many letters protesting these reductions, but few comments suggesting redirection of existing efforts. Generally, they understand the Nation's drive to reduce federal spending but regret its adverse impacts on research funding levels. Our clients remain pleased with the research we are doing, but they want us to do more, not less!

218. Question: What programs have you had to eliminate? Which projects have been combined in an effort to reduce costs?

Answer: Under the FY 1996 appropriation of $178,000,000 for Forest and Rangeland Research, the following actions were taken. More detailed information can be found in the FY 1997 State Briefing Papers and State Sheets provided to the appropriations committee by the Forest Service.

FY 1996 LOCATION IMPACTS (CLOSURES/ELIMINATIONS/MOVES)

Location	RWU	Research Title (Program) and Status
University Park, PA (Federal lab closed)	NE-4351	Enhancement of the Human Habitat (Research eliminated)
Carbondale, IL (Federal lab closed)	NC-4151	Physiology, Genetics, and Processing of Central Hardwoods Research (Most of work eliminated)
Fairbanks, AK (Federal lab closed)	PNW-4570	Protect Forest Health and Productivity (Two scientists moved to Univ. campus, this research eliminated)
Gainesville, FL (Federal lab closed)	SRSE-4552	Integrated Pest Management (Research eliminated)
	SRSE-4106	Intensive Forest Management Practices Assessment Center (Most of the work was eliminated)
Macon, GA (Federal lab closed)	SRSE-4403	Fire and Forest Meteorology (Research eliminated)

Gulfport, MS (Federal lab closed)	SRSO-4502	Wood Products Insect Research (RWU & scientists moved to Starkville, MS. Research not terminated.)
	SRSO-4153	Genetics and Diseases of Southern Pines (RWU and scientists moved to Harrison Experimental Forest, Saucier, MS. Research not terminated.)
Bend, OR (Federal Lab closed)	PNW-4163	Resource Management Productivity (Part of research refocused at LaGrande)

FY 1996 ADDITIONAL RESEARCH PROGRAM ELIMINATIONS

Location	RWU	Research Title (Program) and Status
Madison, WI	FPL-4721 FPL-4718	International Forest Products Fire Safety of Wood Products
Boise, ID	INT-4101	Conifer Ecology and Regeneration
Logan, UT	INT-4253	Statistics for Monitoring
Ogden, UT	INT-4455	Global Climate Change
Madison, WI	NC-4106	Long-Term Strategies and Techniques in Forest Genetics
St. Paul, MN	NC-4107	Mathematical Models of Forest Dynamics for the North Central Region
Burlington, VT	NE-4951	Recreation Investment Research
Seattle, WA	PNW-4362 PNW-4570	Ecosystem Processes Protection of Forest Health and Productivity
Wenatchee, WA	PNW-4362	Ecosystem Processes
Cordova, AK	PNW-4261	Aquatic Land Interactions
Albany, CA	PSW-4503 PSW-4301	Forest Insect Population Genetics and Biochemistry Cumulative Watershed Effects and Inland Fisheries
Macon, GA	SE-4403	Fire and Forest Meteorology
Clemson, SC	SE-4105	Silviculture and Management of Mixed Pine-Hardwood Stands in the Piedmont

PROGRAMS COMBINED IN FY 1996 TO REDUCE COSTS

Location	RWU	Research Title (Program) and Status
Macon, GA	SRSE-4104	Ecology and Genetics of Southern Pine Ecosystems (Scientists and research moved and combined with SRSE-4104 in Athens, GA)
Oxford, MS	SRSO-4351	Watershed Ecosystem Research for the mid-South Upper Coastal Plain and Interior Highlands (2 scientists remain at the lab but are administratively combined with SRSO-4152 at Stoneville, MS). NFS moved into lab.
Jefferson City, MO	NC-4156	Site Productivity of Central Hardwood Forest Ecosystems (Scientist remains on campus, RWU administratively merged with NC-4154, Columbia, MO)
Raleigh, NC	SE-4199	Population Genetics of Forest Trees (Combined with SRSE-4153, Sausier, MS)
Ft. Collins, CO	RM-4352	International Arid Lands Consortium (Program moved to WO)

In addition to these program eliminations and combinations, a significant amount of program research was reduced at numerous locations.

219. Question: What has the funding reduction done to your ability to fund extramural research? Please provide a table of extramural research for FY 1995 and FY 1996.

Answer: Generally, our ability to fund extramural research depends on our appropriation and averages 8-12 percent of our total budget. It is also dependent on what research needs to be done and whether we need to buy the scientific expertise from outside the organization.

We originally anticipated that the FY 1995 Rescission would result in a decrease in our ability to fund extramural research. However, as the enclosed table for FY 1995 indicates over 13% of our appropiated funds were committed to grants and agreements. This increase can be attributed to several reasons. (1) Forest Service Research has continuously downsized its number of scientists since 1985 and in particular, over past two or three years has not replaced retiring scientists in order to reduce FTEs. Thus there has been a greater need to buy expertise outside the agency. (2) The complexity of the research needed to solve many of the issues today requires a broader mix of scientific expertise, some of which is not available in-house. (3) Several of the ecosystem assessments that have been undertaken in FY 1995 and the President's Northwest Forest Plan have required scientific expertise outside the agency.

In FY 1996, however, there appears to be a drastic cutback in funding of extramural research. Furloughs during the first half of the FY, a $15.5 million budget reduction in Forest and Rangeland Research, and the uncertainity created by numerous continuing resolutions until April of 1996 appears to have taken an extreme toll on the extramural research effort. However, until the end of the fiscal year, it will be difficult to determine how extramural funding has been impacted. Many agreements may not be obligated until Stations are sure of what their funding situation for FY 1996 will be toward the end of the year. Many unfunded people had to be maintained on the payroll until they were placed or found other positions. Some may be RIFed, thus severance pay and other costs must be obligated. A FY 1996 summary table (to date), follows.

Extramural Summary
Fiscal Year 1995

Type of Organization	No. of AGRMTS	Funding ($)
Foreign Institutes	20	575,703
Total	20	575,703
Foreign Organizations	4	67,500
Total	4	67,500
Higher Education		
1890 Land Grant	23	349,077
Land Grant	557	16,188,418
Non-Land Grant	259	6,427,728
sum	839	22,965,223
Individual-U.S.	12	156,066
Total	12	156,066
Individuals-foreign	12	84,115
Total	12	84,115
Industrial	1	10,000
Total	1	10,000
Non-Profit Institutes	46	1,272,758
Total	46	1,272,758
Non-Profit Org. - U.S.	9	96,828
Total	9	96,828
Profit	2	10,000
Total	2	10,000
SBI	2	38,600
Total	2	38,600
State Government	17	594,411
Total	17	594,411
Total FY 1995	964	25,871,204

Type of Organization	Extramural Summary Fiscal Year 1996 To Date No. of AGRMTS(*)	Funding ($)
Higher Education		
1890 Land Grant	4	50,000
Land Grant	41	1,335,992
Non-Land Grant	17	687,315
Total	62	2,073,307
Individual-U.S.	3	4,175
Total	3	4,175
Individuals-foreign	1	2,500
Total	1	2,500
Non-Profit Institutes	2	165,270
	2	85,000
Total	4	250,270
SBI	1	20,800
Total	1	20,800
State Government	1	10,000
Total	1	10,000
Total FY 1996 to Date	72	2,361,052

220. Question: What are the impacts of a reduced extramural research program?

Answer: Extramural research has traditionally extended the scope and depth of Forest Service Research to meet its mission and objectives by leveraging our internal capacity with the scientific community at large. Productive partnerships with universities, industry and other scientists have been forged through cooperative research grants and agreements, resulting in timely responses relevant to resource management information needs. A reduced extramural research program impacts Forest Service Research's ability to respond to short-term resource management issues. We are less able to buy extramural scientific expertise needed to quickly address emerging information needs. A smaller extramural research program also reduces developmental and educational opportunities for graduate students who are training to become future natural resource scientists and technical experts for the Forest Service, State and other Federal Agencies, universities, and private industry and generally weakens our partnership with academia.

221. Question: Given that a substantial portion of many extramural research programs is accomplished with the assistance of low-paid graduate students and work study students, does the Forest Service get more accomplished per research dollar by funding extramural research instead of utilizing career researchers within the agency?

Answer: Clearly, students "cost less" than senior Forest Service scientists, in simple salary calculations. But there are many considerations, tradeoffs and other costs that should be weighed before one can determine whether the Forest Service could get more accomplished per research dollar by funding extramural research instead of utilizing career researchers within the agency.

First of all it must be recognized that "low-paid" students (undergraduate or graduate) are low paid because they are in training and are seeking an education. They take courses and balance other pressures associated with a graduate program. Quality assurance of data must be carefully supervised as a student is typically learning field and laboratory methods on the job. There are "start-up" costs involved in time spent training students to bring them to a level sufficient to perform research to acceptable quality assurance standards. Further, the production of manuscripts can vary greatly in quality and quantity depending on the caliber of the individual student, the university, and the supervising scientist (often a Forest Service career researcher).

University administrative overhead charged for extramural funding often conceals much of the additional cost of these students. For example, most universities waive the tuition and fees for graduate students, but it takes facilities, student offices, labs, computers and well-trained faculty etc. to support them. Part of these costs are borne by overhead charges in extramural funding.

Extramural research has its advantages when Forest Service Research in-house scientific capacity does not exist or the existing work load does not permit time for the research that needs to be done. Usually, extramural funding is buying a university career scientist's expertise and supervision of students, not the student's expertise. The merit and costs of using low-paid students is best judged on a case-by-case basis.

Forest Service Research extramural funding has averaged about 10 percent of total appropriations during the past several years. As our own workforce has declined through attrition, we have often met science needs through external agreements. However, we expect to see some decline in the level of extramural funding in FY 1996 as a result of budget reductions.

We address the complex problems of all forest and rangeland ownerships and integrate them with world problems. Forest Service Research also produces numerous management guidelines, manager handbooks, and other documents that synthesize research and relate it to specific management problems. These products are intended to ensure our information is useful and in an appropriate form for ready adoption by natural resource managers. This requires a cadre of experienced well-trained scientists able to address complex, long-term problems and familiar with the needs and practices of natural resource managers.

It takes and will take all combinations of career natural resource scientists (federal, university, and industry) to address the complex natural resource issues and problems facing the Nation. Graduate students are needed to assist these scientists and in turn become future scientists.

222. Question: How does the Forest Service in-house overhead compare and contrast with that of academic institutions you partners with?

Answer: In-house overhead rates vary from research station to research station depending on the type of research, and the geographical location of the station. However, the average overhead rate for the nine research stations is 20.0%.

Like research station overhead assessments, academic institutions have a wide variance in rates depending on whether the research is on-campus or off-campus. For example, Oregon State University charges an on-campus rate of 39.5%, the University of Illinois is 54.4% and Idaho State University charges 44.60%. On-campus and off-campus rates generally change (depending on category of work to be accomplished), once each year. The average rate for the Forest Service does not appear to be excessive in comparison to that of our partners.

223. Question: What are the major research areas and questions that are not addressed at the FY 1997 funding request level? What additional programs and projects would be reduced or eliminated if you had a further 10% reduction in FY 1997?

Answer: Forest Service Research addresses a broad array of research areas and questions for all forest and rangeland ownerships across the nation. A priority is to maintain a primary core of scientific expertise to address both short-term manager needs and long-term science needs that we believe will provide answers for future resource issues.

If funding were available, major areas that would have been supplemented include: (1) research to improve forest inventory and monitoring methodology: and (2) research to support forest health and sustainablity particularly in the areas of: (a) insect and disease research, (b) exotic weed and pest problems, (c) fire ecology, and (d) restoration of forest and rangeland productivity.

Following is our proposed reduction of the Forest and Rangeland Research program. Our approach was to review the entire program and continue to reduce the lowest priority research programs and projects. With the input of a cross-section of customers, we developed and used a set of six attributes for prioritizing our current and future research issues and problems. These are: (1) Does the research involve a clear federal role? (2) Is the research important? (3) Do we have a comparative advantage or is someone else better equipped to do the work? (4) What is the likelihood of success? (5) Is the research cost-effective and are the outcomes worth the investment? and (6) Is there support for the work from our customers and the scientific community?

Each station reviewed their projects and the relative importance to the region and/or nation. This was followed by a review and collaboration with Washington Office staff who are responsible for oversite and assuring that duplication of effort is not occurring.

The reduction is proposed in three decrements:

I. A 1 percent reduction, which reduces the FY 1997 President's budget of $179.8 million (-$1.8 million) back to the FY 1996 Appropriation level of $178.0 million.

II. A 5.4 percent reduction which further reduces the FY 1996 budget to $168.4 million (-$9.6 million)

III. An additional 4.7 percent reduction which further reduces the budget to $161.1 million (-$8.3 million).

Each decrement should be considered as additive, i.e. each decrement stands by itself, but they can be added to develop a cumulative reduction and associated impacts.

Each decrement is proposed under a "Research Activity" as defined in the Forest and Rangeland Research section of the Forest Service FY 1997 Budget Explanatory Notes for the Committee on Appropriations (pages 3-1 thru 3-12).

FOREST AND RANGELAND RESEARCH

DECREMENT I: **1 PERCENT REDUCTION (-$1,800,000, FY 1997 increase over FY 1996 APPROPRIATION)**

ACTIVITY: 1.2 Silvicultural Applications

DECREASE: $100,000

ACTION: Eliminate the proposed increased funding in the President's FY 1997 budget for the NW Forest Plan. There would be no increase in research to develop alternative silvicultural prescriptions for managing old-growth forest stands.

OUTCOME: This reduction in funding will delay development of options for goals of NW Plan. Lack of old-growth management options will delay implementation of the Plan. This research could potentially lead to higher timber harvests and more environmentally acceptable forest management practices in the future.

STATIONS IMPACTED: PSW

ACTIVITY: 1.4 Multiple-scale Forest Management

DECREASE: $775,000

ACTION: Eliminate the proposed increased funding in the President's FY 1997 budget for the NW Forest Plan. There would be no increase in research to expand adaptive management, landscape analyses, and monitoring protocols for late successional old-growth and riparian areas.

OUTCOME: This reduction in funding could delay the timeframe for meeting Record of Decision requirements for management of NW forests.

STATIONS IMPACTED: PNW and PSW

ACTIVITY: 2.1 Wildlife Habitat

DECREASE: $325,000

ACTION: Eliminate proposed increased funding in the President's FY 1997 budget for the Pacific Northwest Forest Plan. There would be no increase in research to provide information on relationships of marbeled murrelet habitat to upland practices and estuary productivity. There would also be no increase in research on old-growth obligate species in California.

OUTCOME: This action will delay implementation of the President's Northwest Forest Plan because of lack of information needed to resolve conflicts between murrelet habitat and timber outputs. Confrontation appeals, and litigation related to murrelet status and habitats are likely.

STATIONS IMPACTED: PNW and PSW

ACTIVITY: 2.3 Watershed

DECREASE: $100,000

ACTION: Eliminate proposed increased funding in the President's FY 1997 budget for the NW Forest Plan. There would be no increase in research to provide and apply methods for long-term systematic monitoring in selected watersheds and provide reference points for effectiveness and validation monitoring.

OUTCOME: This action will delay implementation of the President's Northwest Forest Plan because of lack of information needed for its execution.

STATIONS IMPACTED: PNW

ACTIVITY: Washington Office, All Research Activities

DECREASE: $500,000

ACTION: Reduce funding in Washington Office.

OUTCOME: Reduce staff travel and training. Our presence in the scientific and policy community will be reduced. Program oversight will be diminished. Our ability to respond to requests from Congress, the Administration and public will be impaired.

FOREST AND RANGELAND RESEARCH

DECREMENT II: 5 PERCENT REDUCTION (- $9,596,000)

Estimated unfunded positions: 80 permanent employees (26 scientists) RIFed
Units terminated: 5
Location/Lab closures: 2 (New Orleans, LA and Lincoln, NB)

ACTIVITY: 1.1 Fundamental Plant Science

DECREASE: $434,000

ACTION: Reduce research on genetic improvement of Great Plains trees, understanding ecology of understory plants in the northwest forest, forest ecology as related to ecosystem models, atmospheric effects on tree growth and productivity in northern forests, improvement of red oak nursery production, and reduction of forest genetic research on northwest trees.

OUTCOME: This reduction will delay the development of new information needed to sustain the health and productivity of the Nation's forests.

STATIONS IMPACTED: NC, RM, PSW and PNW

ACTIVITY: 1.2 Silvicultural Applications

DECREASE: $757,000

ACTION: Reduce research on monitoring protocols for long-term site productivity, methods for developing ecosystem models, effects of thinning on oak and pine, relationships between forest management practices and wood properties in southern pines, seed physiology and germination of southern pines, genetics of northwest conifers, Hayfork Adaptive Management Area, and upland silviculture in the Lake States.

OUTCOME: This reduction will delay development of improved management practices to sustain the health and productivity of the Nation's forests.

STATIONS IMPACTED: SRS, NC, PNW, PSW

ACTIVITY: 1.3 Quantitative Analysis of Forest Vegetation

DECREASE: $345,000

ACTION: Reduce research on ecosystem modeling, methodology for assessing biodiversity, development of models relating pollution and vegetation development.

OUTCOME: This reduction will delay the development of new information needed for improved management practices for forest managers.

STATIONS IMPACTED: SRS and PSW

ACTIVITY: 1.4 Multiple-Scale Forest Management

DECREASE: $314,000

ACTION: Reduce research on learning centers for technology transfer, Kirtland's Warbler, science support for Adaptive Management Areas, decision support systems for ecosystem management, and adaptive management processes.

OUTCOME: This reduction will delay the development of new information needed for improved management practices for forest managers.

STATIONS IMPACTED: NC and PNW

ACTIVITY: 1.5 Rangeland Ecology

DECREASE: $78,000

ACTION: Research on grazing and grazing impacts will be reduced.

OUTCOME: A long term grazing study will be disrupted resulting in incomplete information for developing grazing guidelines.

STATION IMPACTED: INT and PSW

ACTIVITY: 1.6 Forest Operations Engineering

DECREASE: $360,000

ACTION: Reduce funding to develop technologies to carry out "light-on-the-land" operations in dense stands and wet sites.

OUTCOME: This reduction will slow implementation of ecosystem management in areas of poor forest health such as the Westside National Forests, and reduce work to mitigate environmental impacts of harvesting operations.

STATIONS IMPACTED: NE, NC and PNW

ACTIVITY: **1.7 Basic Ecology of Insects, Diseases and Exotic Weeds.**

DECREASE: $765,000

ACTION: Reduce research on the biology and ecology of major insect and disease pests including gypsy moth, oak wilt disease, and western forest defoliating insects.

OUTCOME: Terminate research on identifying insect pest species and population fluctuations of forest defoliating insects. This will impair our ability to prevent losses to insect outbreaks and severely deplete our capacity to develop ways to restore and improve the health of forest ecosystems in the West. We will not provide adequate information on ways to prevent damage from gypsy moth as this alien pest continues to spread southward and westward into uninfested States. Limits our ability to provide scientific information on how to stop the spread of oak wilt disease, which continues to kill oaks in 60 counties in Texas. Delay in the development of controls for diseases in forest nurseries needed to replace methyl bromide, which will be banned by the year 2001.

STATIONS IMPACTED: NE, NC, SRS, PNW and PSW

ACTIVITY: **1.8 Evaluation, Prevention and Control of Insects, Diseases, and Exotic Weeds.**

DECREASE: $617,000

ACTION: Eliminate research on the biology and ecology of fusiform rust. Eliminate our last research program in Florida. Reduce research to find alternatives to methyl bromide, which will be banned by the year 2001. Eliminate root disease research in the Pacific Northwest. Terminate research in the Pacific Northwest on finding natural chemicals to control insect pests. Stop further research on the decision support model for gypsy moth control.

OUTCOME: Terminating research on the biology of fusiform rust, the most important disease of pines in the South, means that new approaches to controlling this disease will not be forthcoming, even though there is concern about the possible emergence of strains capable of infecting resistant trees. Eliminating the research program in Florida greatly decreases our entomology capability in the Southeast. We won't be able to provide additional information on integrated pest management, especially on non-chemical controls for insects in southern seed orchards. Methyl bromide is the soil fumigant that is used to control weeds, insects, nematodes and fungi in forest tree nurseries. Its use will be banned in 2001 and we do not have adequate replacements. These cuts will result in major pest losses in nurseries and result in major cost increases to commercial, government, and private replanting programs. The termination for support of the gypsy moth model will stop adaptation of the model for new ecosystems as the gypsy moth continues to spread. The reduction in root disease research in the West interrupts the information flow on disease problems with significant long-term impact on resources and ecosystem resilience. The reduction would further deplete an already seriously reduced knowledge base and research capability in disease research in the West. The reduction of research on natural products chemicals will slow the development of new tools needed to manage insect populations. New tools are vitally needed to manage insect populations in environmentally and ecologically sensitive ways to meet USDA's goal of reduced use of pesticides.

STATIONS IMPACTED: NE, NC, SRS, PNW

ACTIVITY: 1.9 Fire Science

DECREASE: $375K,000

ACTION: Reduce research on effects of fire in unhealthy ecosystems where fire is a dominant component; terminate research on fire monitoring technology being developed to remotely monitor ecosystem impacts; reduce research on use and impacts of prescribed fire in southwestern ecosystems stretching from New Mexico/Arizona through California; reduce research focusing on the use of fire weather information for improving fire fighter safety and fire management decision making; and reduce research that provides technology on smoke management and fire disturbance potential throughout the northwest and Alaska needed for forest health management and ecosystem restoration projects.

OUTCOME: The health and safety of communities, fire fighters, and ecosystems increasingly depends on improving fire management while reducing costs. The Forest Service currently invests less than 1% of its fire management expenditures on fire research needed to make fire management better, safer, and less costly. These reductions will further erode our research capability to reduce the risks to fir fighter health and safety, reduce the costs of fire management, reduce fire destruction in the wildland urban interface, and reduce our ability to restore ecosystems that need fire to remain healthy. We will be unable to sufficiently support implementation of the Federal Fire Policy and FIRE 21.

STATIONS IMPACTED: NC, PNW and PSW

ACTIVITY: **2.1 Wildlife Habitat**

DECREASE: $960,000

ACTION: Reduce funding for studies of a few endangered, threatened, and sensitive species, including reptiles, small mammals and neotropical migratory birds. Forest Service support for work on birds and small mammals associated with riparian areas in Alaska and the Intermountain West will be reduced. The total FSR ungulate research program will be significantly reduced. Investigations of wolf and moose in south central Alaska and deer in the California Sierra will be terminated.

OUTCOME: Termination of wolf and moose research in Alaska will eliminate wildlife research support for the Chugach National Forest. There will be virtually no wildlife habitat technical support for the Copper River Delta Institute.

STATIONS IMPACTED: SRS, INT, PNW and PSW

ACTIVITY: **2.2 Aquatic Habitat**

DECREASE: $183,000

ACTION: Reduce research on amphibians and salmonids in the Mt. St. Helens blast zone will be reduced.

OUTCOME: A better understanding of how amphibian and salmonid populations recover from site disturbance will not be advanced. This will limit the ability to manage for major ecosystem components during ecological restoration following natural disturbances.

STATIONS IMPACTED: PNW

ACTIVITY: **2.3 Watershed**

DECREASE: $708,000

ACTION: Terminate mine reclamation research at Logan, UT, ending the last remaining effort on this topic in the Forest Service. Terminate agroforestry research on buffer and filter strip protection of aquatic systems in the Great Plains. Reduce work on effects of changing climate on greenhouse gas emissions from northern peatlands, effects of global climate change on streamflows, and impacts of forest harvesting on stream health.

OUTCOME: This will end the last remaining efforts in mine reclamation research in the Forest Service and terminate development of remedial measures for reduction or prevention of stream pollution from this source. Termination of the Great Plains agroforestry research will have a similar effect on stream systems in that area. The reductions will reduce our ability to mitigate the effects of forest management and maintain productive forest resources.

STATIONS IMPACTED: NC, RM and INT

ACTIVITY: 2.4 Atmospheric Science

DECREASE: $152,000

ACTION: Reduce research on smoke emissions from a variety of ecosystems

OUTCOME: Smoke emitted from wild and prescribed forest fires is a health concern to local communities, regulatory agencies, fire fighters, and international bodies. Smoke is considered the primary limiting factor preventing greater use of prescribed fire for restoring unhealthy ecosystems. The reduction proposed would further delay research findings need to help assure community and fire fighter health, and would make the reintroduction of fire to restore ecosystem health more costly and time consuming.

STATIONS IMPACTED: NC and PSW

ACTIVITY: 3.1 Economics (Renewable Resources)

DECREASE: $570,000

ACTION: Reduce research to identify cost-effective regional forest output goals, eliminate research to determine the potential for exporting softwood products from the eastern US, eliminate research on how changes in tax laws affect forest management, reduce research on technologies that use material removed from forest lands to restore forest health and productivity.

OUTCOME: Information needed to make profitable and productive forest investments in the North will be more limited, less information will be available on international trade in eastern softwoods, eliminates the last expertise for FSR to respond to the need of all landowners for information on how taxes and regulations affect the economics of forest management, reduces the capability of FSR to respond to the need for guidelines for utilization of timber produced in the application of ecosystem management.

STATIONS IMPACTED: NC, FPL, and SRS

ACTIVITY: 3.2 Urban Forestry

DECREASE: $100,000

ACTION: Reduce research on development of models needed to estimate cost benefit ratios of urban forests. Research would also be reduced on models to estimate utility district-wide energy conservation investments.

OUTCOME: Public utilities and urbanized areas will lose critical information on energy system investment options. Models will not be available to engineers and other decision makers when this information is needed for large scale infrastructure investments. This reduction will further deter our ability to leverage federal research dollars for cooperative research.

STATIONS IMPACTED: PSW

ACTIVITY: 3.3 Wilderness

DECREASE: $100,000

ACTION: Reduce research to sustain wilderness resources in an ecologically sound manner.

OUTCOME: Diminishes the only FSR capability to develop guides for management of wilderness areas.

STATIONS IMPACTED: INT, Wilderness Research Institute

ACTIVITY: 3.4 Social/Cultural

DECREASE: $426,000

ACTION: Reduce research on developing responsive and innovative ways to meet changing public demands regarding forest management; reduce research on developing effective communication linkages among forest managers and the public; terminate research and development on a Benefits-Based approach to managing for recreation on national forests and other wildlands; terminate efforts to determine the values children have for forests and the environment and understanding how and when those values form and change; eliminate research on how the Forest service incorporates historical, cultural, and archeological data into an ecosystem management planning process; and eliminates research to evaluate the sociological and socio-economic impacts of changing forest management practices in southern forests and to examine the role and structure of minority participation in forestry.

OUTCOME: Reductions will slow the development of techniques for understanding how people place values on forests and how to place sociological perspectives in ecosystem management. This is one of the weakest areas in the implementation of ecosystem management and the lack of applicable research results will further complicate its implementation. Differences in values people place on forest management practices increasingly play a role in what management practices can and can't be used. Understanding these values can lead to better and more acceptable forest management systems.

STATIONS IMPACTED: NC, SRS, RM, PNW, and PSW

ACTIVITY: 3.5 Forest Products Utilization and Processing

DECREASE: $1,310,000

ACTION: Reduce research to conserve wood resources by extending the life of wood, recycling, and reducing environmental impacts associated with manufacturing.

OUTCOME: Reduction of work at IITF will eliminate evaluation of tropical wood species that have direct impacts on domestic markets. Reduction of work at the FPL and Pineville units will reduce efforts to find improved resins for wood composites, recycling work, efforts to reduce wastes in sawing operations, and use of agricultural materials in combination with wood to extend wood resources.

STATIONS IMPACTED: SRS, IITF, FPL, and PNW

ACTIVITY: 3.6 Forest Products Safety and Human Health

DECREASE: $361,000

ACTION: Reduce research that addresses the health and safety concerns of consumer public.

OUTCOME: This reduction will terminate all fundamental and applied research on the use of coatings and finishes to protect wood in use using low volatile organic compounds (VOC) paints and finishes. Also, termination of research on multiple-bolted connections will reduce our Federal Government role to be an unbiased source of information for codes and standards regarding mechanical fasteners.

STATIONS IMPACTED: FPL

ACTIVITY: 4.1 Forest Inventory and Analysis

DECREASE: $100,000

ACTION: Reduce funding to conduct routine field inventories in cooperation with State of Alaska and the National Forest System.

OUTCOME: This reduction will lengthen the inventory cycle by several months by delaying field data collection, thus causing a delay in the timely release of inventory data for State agency and National Forest planning as well as congressionally mandated national assessments.

STATIONS IMPACTED: PNW

ACTIVITY: Forest Health Monitoring

DECREASE: $49,000

ACTION: Reduction in Forest Health Monitoring research

OUTCOME: Diminished ability to monitor forest and rangelands to measure the health and sustainability of the Nation's forests.

STATIONS IMPACTED: NC

ACTIVITY: Washington Office, All Research Activities

DECREASE: $572,000

ACTION: Reduction in Washington Office

OUTCOME: Our ability to respond to requests will be further reduced. Information which used to be maintained at the Washington Office will have to be maintained and requested from the field. Field personnel will have to divert their research effort to administrative effort to respond to information requests formerly handled by the Washington office. Program oversight will be significantly reduce.

FOREST AND RANGELAND RESEARCH

DECREMENT III: ADDITIONAL 5 PERCENT REDUCTION (-$8,281,000)

Estimated unfunded positions: 85 permanent employees (24 scientists) RIFed
Research Work Unit terminations: 7
Location/Lab Closures: 1 (Houghton, MI)

ACTIVITY: 1.1 Fundamental Plant Science

DECREASE: $388,000

ACTION: Terminate research on vegetative propagation and genetic improvement of Douglas-fir, and reduce research on cloning of American beech.

OUTCOME: Forest Service research to improve the growth and disease resistance of Douglas fir will be terminated. American beech will eventually become and endangered species.

STATIONS IMPACTED: NC, NE, and PNW

ACTIVITY: 1.2 Silvicultural Applications

DECREASE: $650,000

ACTION: Reduce research on regeneration, intermediate silvicultural treatments, and development of silvicultural systems in Montana and subalpine forests of the Rocky Mountains. Reduce research on long-term forest soil and site productivity, silviculture of pines and hardwoods in Lake States, and ecosystem management on the Ouachita National Forest. Reduce research on large scale ecosystem studies.

OUTCOME: This reduction in funding will delay development of improved management practices needed to sustain the health and productivity of the Nation's forests.

STATIONS IMPACTED: NC, SRS and INT, WO EM competitive funding program.

ACTIVITY: 1.3 Quantitative Analysis of Forest Vegetation

DECREASE: $32,000

ACTION: Terminate research on vegetative propagation and genetic improvement of Douglas-fir.

OUTCOME: Forest Service research to improve the growth and disease resistance of Douglas fir will be terminated.

TATIONS IMPACTED: PNW

ACTIVITY: 1.4 Multiple-Scale Forest Management

DECREASE: $200,000

ACTION: Reduce large-scale ecosystem studies in Alaska.

OUTCOME: Delays development of silvicultural alternatives to clearcutting in Southeast Alaska.

STATIONS IMPACTED: PNW, WO EM competitive funding program.

ACTIVITY: 1.5 Rangeland Ecology

DECREASE: $100,000

ACTION: Reduce research in large-scale ecosystem studies.

OUTCOME: Delays development of improved management practices for forest and rangeland managers.

STATIONS IMPACTED: PNW and WO EM competitive funding program.

ACTIVITY: 1.6 Forest Operations Engineering

DECREASE: $1,726,000

ACTION: Eliminate forest operations engineering in the North and Central west of the United States.

OUTCOME: This reduction has a major impact on the total forest operations engineering program and will drastically alter our ability to take an ecosystem approach to managing the forests in the United States. The reduction will prematurely terminate research and development of guidelines for sustainable forest management in the Central Appalachians. Because of the increasing harvest from these forests, lack of guidelines could result in irreversible ecological damage to forests and streams. Ultimately, all forest management policy involves manipulating vegetation. Stakeholders need to know how their forest harvesting or road building can minimize tree damage, soil compaction, and water pollution. Terminating this research reduces the ability of industrial, non-industrial, and tribal landowners to harvest forests in an environmentally sensitive manner in support of ecosystem management. In the Intermountain Station, terminating this unique program will adversely affect implementation of the President's Forest Plan in the Northwest, prevent implementation of the latest erosion prediction technology in the Upper Columbia River Basin PacFish guidelines, Eastside EIS, Upper Columbia River Basin EIS, and forest plan revisions. Termination will also end Forest Service participation in the multi-agency national Water Erosion Prediction Project at a time when prediction models for forest environments are being finalized and a national technology transfer effort is being initiated. Termination will also preclude application of WEPP technology to the use of prescribed fire for treating forest health problems in the West. This research will not be picked up by industry. Termination will abolish on-site watershed research capability in Regions 1, 4, and 6.

STATIONS IMPACTED: NE, NC, INT and WO EM competitive funding program.

ACTIVITY: **1.7 Basic Ecology of Insects, Diseases and Exotic Weeds.**

DECREASE: $961,000

ACTION: Terminate a gypsy moth research unit and closes the laboratory at Morgantown, WV. Terminate research on the exotic disease, dogwood anthracnose. Terminate research on taxonomy and biodiversity of tropical wood decomposing fungi and closes the location in Palmer, PR. Reduce research on the southern pine beetle.

OUTCOME: Loss of most of our capability for recommending forest management treatments to reduce gypsy moth damage and for developing ways to prevent gypsy moth spread into uninfested States. Reduce our ability to develop management alternatives to reduce damage by the southern pine beetle, the most destructive insect pest of southern forests. Elimination of research on dogwood anthracnose means that managers will continue to have limited options for combating this deadly fungus. Without new breakthroughs, dogwood trees will disappear from forests above 3000 feet in elevation, and shaded dogwoods between 2000 and 3000 feet will be lost. Eliminates Forest Service Research leadership and participation in the international effort to develop a fungal key for ecosystem managers in the Caribbean and surrounding countries. This key is critical for management of fungal diseases and wood decay and is vital to resolve quarantine problems of wood products from Central and South America. The cuts would slow two projects aimed at learning how various management activities impact soil invertebrate biodiversity thereby decreasing the knowledge base for making informed decisions on how to maintain long-term site productivity and biodiversity.

STATIONS IMPACTED: NE, NC, SRS and FPL

ACTIVITY: **1.8 Evaluation, Prevention and Control of Insects, Diseases, and Exotic Weeds.**

DECREASE: $147,000

ACTION: Reduce research on biological control of exotic noxious weeds.

OUTCOME: Exotic weeds are impacting about 6 million acres of National Forest System lands. This budget reduction will delay finding natural enemies to combat these exotic weeds.

STATIONS IMPACTED: INT and PNW

ACTIVITY: **2.1 Wildlife Habitat**

DECREASE: $200,000

ACTION: Reduce research on demographics of northern spotted owls in support of the Northwest Forest Plan. In addition, studies of forest management influences on riparian zones and amphibian habitats in the East will also be reduced.

OUTCOME: Reduced funding for research on owls and salmon will impede implementation of the Northwest Forest Plan and diminish the credibility of agency monitoring efforts. Reduce research in large-scale ecosystem studies.

STATIONS IMPACTED: NC, PNW and WO EM competitive funding program

ACTIVITY: **2.2 Aquatic Habitat**

DECREASE: $500,000

ACTION: Reduce anadromous fish habitat research in the Pacific Northwest and California and research on amphibians and salamanders in riparian habitats in the Northeast will be reduced.

OUTCOME: Implementation of the Northwest Forest Plan, especially efforts to restore and monitor aquatic habitats, will be slowed. Anticipated outcomes are greater uncertainty, lower public credibility and continued confrontation, appeal, and litigation.

STATIONS IMPACTED: NE, PNW, PSW and WO EM competitive funding program

ACTIVITY: **2.3 Watershed**

DECREASE: $98,000

ACTION: Terminate research to model and predict hydrologic changes resulting from global climate change.

OUTCOME: Delays potential information that can be used by land managers to maintain the sustainability of watersheds.

STATIONS IMPACTED: PNW

ACTIVITY: 3.1 Economics (Renewable Resources)

DECREASE: $200,000

ACTION: Terminate research on renewable resources economics.

OUTCOME: Eliminates the ability of FSR to respond to the need for analyses of bidding procedures for NFS timber sales and eliminates the capability of FSR to do research on rural development in the Rocky Mountain area.

STATIONS IMPACTED: INT

ACTIVITY: 3.2 Urban Forestry

DECREASE: $300,000

ACTION: Reduce research on quantifying the role of trees and forests for reducing air pollution and ultraviolet radiation, and consequent health-care costs, e.g. reduced cancer rates.

OUTCOME: Reduced ability of urban areas to improve air quality and human health using vegetation biotechnology. Public and private agencies lose ability to improve human and environmental health, and reduce health-care costs for urban populations, particularly for people dependent on public assistance (e.g., low income people) who are typically exposed to increased levels of air pollution and ultraviolet radiation.

STATIONS IMPACTED: NE

ACTIVITY: 3.5 Forest Products Utilization and Processing

DECREASE: $339,000

ACTION: Reduce funding to conduct research to conserve wood resources and reduce demands pressure on the National Forests.

OUTCOME: This reduction will terminate timber quality and utilization research in the Pacific Northwest dealing with underutilized hardwood species and dead timber. Reduction at the FPL will slow development of environmentally benign pulping processes that produce less harmful effluents, and reduce research on new adhesive chemistries based on renewable resources.

STATIONS IMPACTED: FPL and PNW

ACTIVITY: 3.6 Forest Products Safety and Human Health

DECREASE: $399,000

ACTION: Reduce research to address safety and health concerns of the public about wood and wood products.

OUTCOME: This reduction will terminate work on biochemical pathways that fungi destroy wood and reduce efforts to find environmentally friendly preservatives to replace existing preservatives that inhibit decay through toxicity of their chemical ingredients.

STATIONS IMPACTED: FPL

ACTIVITY: 4.1 Forest Inventory and Analysis

DECREASE: $744,000

ACTION: Reduce funding to conduct routine field inventories in cooperation with State Forestry Agencies. Terminate research funding on joint multiple-resource inventory protocols with the Natural Resources Conservation Service (NRCS) on merging sampling designs.

OUTCOME: This reduction will lengthen the national inventory cycle by 18 months to a level in excess of 12 years. Immediate impacts will be delays in field data collection in Oregon, Illinois, Indiana, Arizona, and New Mexico where inventories are in progress. This will cause delays in the timely release of inventory data for State agency planning as well as congressionally mandated national assessment reporting.

We will not remeasure demonstration study plots in north-central Oregon to determine feasibility of integrating FS and NRCS inventories, terminating efforts to develop more efficient ways to conduct federal resource surveys.

STATIONS IMPACTED: NC, RM, INT and PNW

ACTIVITY: Washington Office, All Research Activities

DECREASE: $1,797,000

ACTION: Reduce funding and staffing in Washington Office. Merger of stations (RM/INT and NC/NE potential). Support for Long Term Ecological Research at five experimental forests in the National Science Foundation's Long-Term Ecological Research (LTER) program will be reduced.

OUTCOME: Program oversight in WO will be seriously curtailed. Research Associate Deputy Chief's office will be considerably diminished and response will be minimal. Field units would be further impacted as they will be responding to more administrative requests from Congress, the Administration and others. Staff collaboration with the scientific and policy community will be at a minimum. Administrative and management cost savings will be made through merging station headquarters.

Limits the ability of scientists to conduct long term studies of watershed function, effects of atmospheric pollutants, vegetation dynamics and interactions of physical and biological processes that provide forest and rangeland habitat. Research at these world-class research installations (LTER) is done in cooperation with the National Science Foundation and several other federal and state agencies and universities and these relationships will have to be scaled back.

224. Question: Is your scientific capability sufficient to address the key issues and research needs of the Nation's forests and rangelands?

Answer: Using standard deflation values, the Forest Service Research budget has remained relatively constant since 1980. In constant 1980 dollars, the total budget was $95.9 million ($95.9 million actual); in 1997, the President's Budget would provide a 1980 equivalent of $91.7 million ($179.8 million actual). Over this same period, our scientific capacity has declined from 964 scientist years to about 600 scientist years today. In addition, our labs and equipment are becoming antiquated or falling behind in state-of-the art capability. While our organization is lean, we are doing our best to meet the most important needs.

225. Question: What additional flexibility and cost savings have you enjoyed due to the change recently in funding to have the entire research appropriation be in one single budget line item?

Answer: The FY 1996 compression of the Forest Research budget structure into a single budget line item provides the following benefits:

1. It allows greater efficiency and effectiveness in addressing complex scientific questions in an integrated research fashion at the field level instead of having to determine what proportion of each of several BLIs would have to be allocated and tracked relative to the "charge as worked" concept. With a single BLI, the charge as worked is "research" in which numerous scientists of different disciplines participate in an integrated study or studies. They are not limited to what research studies they can participate in by the BLI they are funded by, i.e. a BLI funding constraint does not limit their participation in research as often happened in the old system.

2. It offers latitude in shifting research assets to high-priority emerging issues without the administrative effort and associated costs of cumbersome reprogramming measures.

3. It enhanced our ability to assemble funds to cover the substantial logistical costs of downsizing our research organization to accommodate the $15.5 million budget reduction received in FY 1996.

4. It has reduced paperwork requirements and administrative costs of financial accounting and reporting.

While we believe these benefits have resulted in cost savings, it is difficult to isolate these effects from those of other actions being taken to downsize and reorganize. Most cost savings have been absorbed within the funding cuts and are associated with the positions and various activities we have reduced or terminated.

226. Question: The Forest Service leadership is making a big deal about the importance and value of having science incorporated into the management of the public and private forest lands. How has the research branch enhanced its involvement in management during the past 2 years?

Answer: Forest Service Research (FSR) is an active partner with managers in virtually every major management issue facing the Forest Service. For example, FSR scientists are doing technical analyses for the Tongass Land Management Plan; collaborating with managers and diverse publics to test ecosystem management strategies in Pacific Coast Adaptive Management Areas; developing watershed protocols for restoring salmon habitat in the Pacific Northwest; conducting watershed analyses and providing guidelines for watershed restoration in support of the Northwest Forest Plan; providing expert silvicultural prescriptions through the Northeast Decision Model to state, private, and federal land managers in the Northeast; and conducting in-stream flow analyses related to reserved water rights in the Rocky Mountains and the Intermountain West and to hydropower relicensing needs nationwide.

In addition to the actions noted above, FSR in 1994 initiated an agency-wide roundtable to improve or expand collaboration between scientists and managers. In June 1996, FSR in cooperation with other Deputy areas will conduct a workshop to produce agency guidelines to strengthen the integration of science with management and policy decisions.

227. Question: What additional steps are you taking to make research more relevant to issues and management problems?

Answer: Forest Service Research maintains a network of contacts in the scientific, land management, and environmental communities to help us determine research needs and to assure that our research products are delivered in a useable form. Research management at all levels meets periodically with various interest groups and involves them in our program review process. Resulting efforts have helped in defining strategic directions for specific areas of research which support management needs. During the last year we have renewed our commitment to involve customers in setting research priorities. At the national level, for example, we met with a cross-section of interest groups in a round table discussion of research priorities, met with the National Association of Professional Forestry Schools and Colleges (NAPFSC), the National Association of State Foresters, and the American Forest and Paper Association. We also have solicited comments on our program from a broad range of professional, industry, conservation, environmental organizations and public agencies.

We also have developed six attributes for evaluating our current and future research program. These attributes are described in the answer to Question H-216. We also are developing a customer survey to provide continuous feedback on our research and on the usefulness of our findings.

228. Question: How are you rewarding and recognizing scientists who are able to provide timely and useful assistance to land managers? Please provide a summary of major research awards and commendations from FY 1995 and FY 1996.

Answer: Forest Service Research makes a special effort to recognize and reward scientists who play a key role in providing sound scientific information needed by land management decisionmakers. This recognition comes in a variety of ways, including monetary and non-monetary extra effort awards and performance bonuses (sustained superior performance and quality step increases). In addition, we have several national awards that recognize the creative efforts and contributions of our scientists. The "Distinguished and Superior Science Award" annually recognizes four scientists who have demonstrated sustained research productivity and contributions of major impact on science or technology. An "Early Scientist Award" recognizes scientific or engineering research demonstrated through personal accomplishments, outstanding capability, and exceptional promise for significant future achievement. Forest Service scientists have also achieved worldwide recognition. A summary of the awards given in FY 1995 and FY 1996 follows:

Award	FY 1995	FY 1996
Extra Effort		
Monetary	61	27
Non-monetary	4	39
Performance	108	24
Patents	9	7

Note: In FY 1996 several of the Research Stations have suspended monetary awards and performance awards because of budget constraints. In addition, FY 1996 is not completed. A detailed list of significant internal awards can provided.

Forest Service Research scientists have also been recognized by national and international organizations. The following is just a sample of the types of recognition that our scientists have received.

- International Union of Forestry Research Organizations 1996 Scientific Achievement Award given to a scientist from the Pacific Northwest (PNW) Research Station.

- 1995 Chuck Yeager Award from the National Fish and Wildlife Foundation given to a PNW scientist.
- Nature Conservancy commendation award to a scientist from Northeastern (NE) Research Station.
- American Forests Urban Forestry Medal for Research to a NE Scientist.
- Wallenberg Prize, considered the forestry research equivalent to the Nobel Peace Prize. Awarded by the King of Sweden for excellence in forestry research. (3 scientists in the past few years)

Forest Service scientists also receive recognition and reward through the research grade evaluation promotion process. Research scientists are evaluated by a peer and land manager review panel on their ability to fulfill the requirements of their individualized position description. Promotion is an acknowledgement of their scientific accomplishments and their ability to provide timely and useful assistance to land managers.

229. Question: Another major area of concern to the Forest Service is the nebulous category of forest health. How are you addressing the nation's urgent and long-term forest health research needs?

Answer: The FY 1997 President's Budget for Forest Service Research has four of its 22 research activities primarily focused on Forest Health. These are Basic Ecology of Insects, Diseases, and Exotic Weeds; Prevention and Control of Insects and Disease; Fire Science; and Forest Health Monitoring. More complete descriptions of these four are given below. In addition, 8 of the 22 Forest Service Research activities contribute significantly to Forest Health research. Forest Health Research is done in close coordination with Forest Health programs in State and Private Forestry and the National Forest System.

Basic Ecology of Insects, Diseases, and Exotic Weeds

Insects and diseases continually evolve over time to the point where they can thwart even the best forest management practices. In addition, large numbers of exotic insects, diseases, and weeds continue to invade our domestic forests via international trade and travel. Therefore, an investment in basic insect, disease, and exotic weed research must be constant. This research provides fundamental knowledge and technology to better understand how insects, diseases, microorganisms, and exotic weeds affect forest and range health, and conversely, how forest and range conditions and environmental stresses influence insect, disease, and exotic weed damage trends. The research also provides basic biological information on the ecological effects and benefits of insects and microorganisms necessary to develop forest management practices that create and maintain healthy ecosystems. Typical research being done in this activity area are studies of insects that are the food source for the young Red Cockaded woodpecker, an endangered species, and the biology of wild mushrooms being picked in the Pacific Northwest. This mushroom harvest has become a multimillion-dollar alternative forest products industry in the Pacific Northwest.

Prevention and Control of Insects and Diseases

Forest pests, such as white pine blister rust, the gypsy moth, and bark beetles, are the major cause of tree mortality in United States forests. Mortality of timberland is increasing--up 24.3% between 1986 and 1991, an increase loss of 1.1 billion cubic feet of timber. Forest Service research is developing techniques to survey and detect insect, disease, and exotic weed pests, evaluate their impact, and quantify their effects on ecosystem health. Research provides integrated pest management strategies that are environmentally sound. Research is focusing on exotic species, which are often the most damaging pests. Typical of these programs is the biological control of weeds programs in Hawaii and Montana and gypsy moth control programs in the eastern U.S..

Fire Science Research

Fire is a powerful force that profoundly impacts both people and forests. Fire is a primary shaper of many forest ecosystems. We are utilizing the knowledge base of fire research to develop technologies that better map catastrophic fire damage potential in unhealthy forests, enhance use of fire effects information to better plan post-fire recovery, and improve the use of prescribed fire to help restore forest health. Typical of this program is the research focused on the reintroduction of fire as a regulatory component in forest vegetation management in the Western U.S.

Forest Health Monitoring (FHM)

The Forest Service, in conjunction with the State foresters, is implementing a system to monitor the health trends of the nations forests and rangelands. The system, Forest Health Monitoring (FHM), is being expanded across the nation. FHM consists of four components: Detection Monitoring-low intensity monitoring across a broad landscape; Evaluation Monitoring- higher intensity investigation for a portion of the landscape where a potential problem is detected; Intensive Site Ecosystem Monitoring-high intensity monitoring at a small number of localized sites; and Research on Monitoring Techniques-development of more sensitive indicators of forest health and more economical methods of monitoring. The Detection Monitoring phase is currently in 20 states (ME, NH, VT, MA, CT, RI, NJ, MD, VA, DE, MI, MN, WI, GA, AL, CO, ID, IN, WV, and CA). We hope to add 8 more states in 1997. The Intensive Site Ecosystem Monitoring phase is partly implemented on one site. State & Private Forestry's Forest Pest Management surveying and technical assistance program is being linked to intensive FHM efforts.

Contributory Activity Areas from the Forest Service Research Program.

Several other research activities contribute to Forest Health research but are not focused on it. Forest Inventory & Analysis is being adapted to support Forest Health Monitoring and Research into Monitoring Methods. Fundamental Plant Science, Silvicultural Applications, Multiple Scale Forest Management, Forest Operations Engineering, Watershed Research, and Atmospheric Sciences are all providing technology and fundamental knowledge that are important to efforts in restoring and maintaining forest health.

230. Question: What additional forest health research is important?

Answer: Forest Health research areas where expansion of our existing programs is needed include:

- Exotic weeds, particularly in rangelands and in Hawaii
- Controls for exotic fungal pathogens, mostly in the eastern US where several major introduced pathogens are expanding their range with resulting forest devastation. We focus minimal program effort on many of these exotic species.
- Greatly expand the research program on the roles insect and microbes perform in the functioning of forest and range ecosystems. These studies would include major studies on fungal and insect decomposition of woody debris to reduce fire danger in Western forests, biological limits on commercial harvesting of mushrooms from forests, natural fluctuations in microbes and insects over long periods of time, and detailed studies of biodiversity of microbes and insects which contain most of the worlds biodiversity but have never been identified.
- Research on better methods to restore the use of fire in western fire maintained ecosystems is needed. This is an urgent need for the forests of the Rocky Mountains.
- The Forest Health Monitoring (FHM) program needs to be fully implemented in all the forest and rangeland areas of the U.S. The Detection Monitoring phase of FHM is fully implemented in 20 states but the Intensive Site Ecosystem Monitoring phase of FHM is lagging behind. We also need to develop more sensitive and economical indicators of forest and rangeland health.
- Expand research on vegetation management to control stand density and restoration of species mixes to enhance site productivity and sustainability.

231. Question: How would you categorize the nation's current forest health status as contrasted with that of 10 and 20 years ago?

Answer: We are just beginning (since 1990) to establish a trendline of forest health via the Forest Health Monitoring Program, so it is difficult to answer quantitatively. However, we do have substantial qualitative information. Overall the health of the nation's forests over the last 10-20 years remains good. However, there are regional and local health problems that are of great concern. This is due to a buildup of a number of factors: exotic pests have increased in severity; effects of a long-term drought in the west are accumulating and taking their toll; and 20 or more years of fire suppression have added to the problem of overcrowded forests.

We find there is no widespread decline in forest health, but these regional and local areas of concern indicate the situation is may be worsening, and we are increasing our efforts to address it.

A new forest health policy is being drafted by the Forest Service that will acknowledge forest health as a top issue and a major consideration in any future National Forest System planning efforts. Forest health will also be a primary focus of new collaborative efforts with local and state agencies, Tribal activities, and other federal agencies.

232. Question: What has been the role of forest service research in recognizing the status of the nation's forest health and prescribing suggestions for its amelioration and enhancement?

Answer: Forest Service Research has played a vital role in the amelioration and enhancement of the nation's forest health. We have provided numerous control technologies for forest managers over the years and continue to develop appropriate technologies. Bacterial and viral biological controls for the exotic gypsy moth have recently been developed as well as guidelines for use of chemical pesticides. Natural sexual attractants (pheromones) to control insects in high-value stands have been developed. We developed methyl bromide as a pretreatment in forest nursery operations and are currently developing alternatives to use in place of methyl bromide when it is banned in 2001. We are advising on quarantine requirements for the recently introduced pine shoot beetle in Christmas tree plantations in the Great Lakes region and on quarantine requirements for the importations of logs and wood chips from Asia and South America.

Forest Service Research maintains a large resistance breeding program for commercial tree species, including the use of biotechnology methods. This program has provided pest-resistant planting stock for much of the nations commercial forests. Fire-exclusion polices have created the potential for major catastrophic fire and disease problems in most western forest types. Forest Service Research is developing methods to reintroduce fire into these ecosystems to restore forest health. without losing the desired parts of the ecosystem. We are expanding our exotic weed control research program with a new research program on control techniques for exotic range weeds in Montana. We are leading efforts to develop better methods of monitoring forest health for use in our and others monitoring programs.

Forest Service scientists have played a key role in providing regeneration and silvicultural techniques to enhance and maintain healthy forests and productive sites. Through improved forest engineering technologies harvesting and other on-land operations have been developed to lesson the impact on forests. Forest products scientists are working to improve utilization of small diameter industry species to reduce forest fuels while providing jobs.

233. Question: Is forest health a useful scientific concept or should we instead rely on descriptions of forest characteristics that are directly measurable?

Answer: Forest Health is a useful concept which implies that there is more to health than any one component of the forest or range ecosystem. Instead, it conveys a status for the whole forest or range ecosystem. Forest health cannot be directly measured, but is the result of a number of sensitive indicators chosen from the site's physical, chemical, and biological characteristics. These must be compared against expected status at any point in the ecosystem's normal succession and tracked over time. These individual measures must be linked, frequently by a model, into an index of forest health.

234. Question: Why are some of the high priorities for research in the forest health arena not included in the budget proposal at the requested level?

Answer: The research activities listed in the answer to Question 229 are included in the Research Explanatory Notes. The Administration's budget proposal for Forest Health Monitoring and Research is formulated to balance different areas of Forest and Rangeland Research work. Within the President's budget, a higher funding level for this program area would require an offset by providing lower funding for other Forest and Rangeland Research activities which we consider of equal or higher priority.

235. Question: What will the inventory cycle be for the various regions of the nation at the requested funding level? How does this compare with the recent past? What are the economic impacts and other impacts of having a reduced forest inventory cycle?

Answer: The following table illustrates historic FIA appropriations in real and constant dollars and approximate inventory cycles for those years. Additional cycle information by major geographic region is also included.

Recent FIA Appropriations and Inventory Cycles

	FIA Approp.1/	Approp. 1992 $ base 2/	National Inventory Cycle	Estimated Regional Inventory Cycle in Years			
Year	Current ($1,000's)	Constant ($1,000's)	(Years)	North	South	Int. West	Coastal West
1990	13,991	15,058	10	14	6	12	10
1991	14,959	15,401	10	14	7	12	9
1992	15,376	15,376	10	13	8	14	10
1993	15,799	15,381	11	12	8	16	10
1994	15,845	15,049	11	13	9	16	11
1995	15,956	14,746	11+	12	10	17	11
1996	16,152	14,510	12 (est)	13	10	17	12
1997	16,189	14,124	12+ (est)				

1/ Current dollars. Includes national program allocation.
2/ Constant dollars, 1992 base year.

FIA is the only program in the nation that provides consistent, reliable information about the nation's forests across all ownerships. This strategic information is critical as we re-evaluate the role of federal vs. private forest lands in providing timber as well as other resource-based goods and services for the public. Lack of current information on trends in the condition, growth, mortality, and harvest in the nation's forests can lead to poor policy decisions.

236. Question: Given the large interest in the forest inventory, is it possible to compile this information on a reimbursable basis? What legislative changes would be needed to accomplish this? How does the forest inventory complement or duplicate inventories conducted by the states and by large industrial owners?

Answer: We do not believe it would be feasible to compile this information on a reimbursable basis. Of the forest lands inventoried, 34 percent of the data collected by Forest Service Research is on federal forest lands, 48 percent is on non-industrial private forest lands, and the rest is on other public or private industrial lands. A recent survey conducted by Forest Service Research indicates that there are nearly 10 million private forest land owners in the U.S. We do not believe there is a feasible mechanism, short of allocation of public funds, to efficiently solicit funds from these individuals to conduct the valuable service of maintaining a consistent and compatible set of information about the condition and trends of the Nation's forest lands across all jurisdictional boundaries? This inventory effort as in the case of the Decennial Census, is a clear case of an appropriate role of federal government to collect and maintain basic information on a national resource to develop sound national policies.

The Forest Service Forest Inventory and Analysis program is the only resource inventory program in the nation that plans, collects, and analyzes consistent, scientifically sound forest inventory data across all land ownerships. The charge to make and keep current a comprehensive inventory of the forest lands of the United States was initially set forth in the McSweeny-McNary Act of 1928 which was later replaced by the Renewable Resources Planning Act of 1974 and the Renewable Resources Research Act of 1978.

Frequently, States would like inventory data that are more precise at scales lower that the State level. FIA currently has 80 million acres of forest land in 7 States with 'intensified' forest surveys. This additional inventory work is paid for by the cooperator with technical assistance, quality assurance, and data processing provided by FIA. Some States also provide 'in-kind' assistance in the form of personnel or equipment, when possible, to assist in speeding up regular FIA inventory work and get their inventory information more quickly. In all cases, additional data are collected to a consistent federal standard.

To make our inventory information more accessible to the public, we have worked with our partners to place our data on the World Wide Web with tools that allow our customers to easily retrieve their own inventory data. This can be done by visiting the following web site: http://srsfia.usfs.msstate.edu/scripts/ew.htm

237. Question: How does the inventory process avoid infringing on private property rights? What complaints have you had the past 2 years?

Answer: FIA has a long history of cooperation with private landowners. Inventory crews in coordination with State cooperators take great care to establish contact with landowners prior to collecting inventory data and inform them of the value of their contribution in developing current inventory information. We have routinely experienced a 'denied access' rate from private land owners of less than one percent of the nearly 12,000 plots we measure annually. Recently, however, we have experienced small increases in denied access rates, particularly in the interior West. The most common reason for denied access is individuals not wanting anyone from the 'government' on their land for any reason.

238. Question: Please explain why the research branch requested RIF authority?

Answer: We initiated the request for RIF authority at the beginning of FY 1996 because the proposed appropriation for Forest and Rangeland Research was 8.0 percent below the FY 1995 enacted budget. Salary and facility costs comprise approximately 80 percent of the Research budget and a reduction of this magnitude created a potential need to reduce the Research work force by 11.3 percent (235 unfunded permanent employees). We did not believe it to be in the best interests of the Forest Service Research mission to absorb the costs of these unfunded people within our existing budgets and reductions in future FY budgets appeared to be quite probable.

In FY 1995, Forest Service Research from 2,532 to 2,412 employees (a reduction of 120). This reduction was made relatively easy through buyout authority and vacant positions existing in the National Forest System. However, it did not appear that all unfunded personnel could again be placed in FY 1996. Thus, we requested RIF authority as soon as possible in an effort to minimize the impact on people and the organization.

239. Question: What is the current status of RIF? How many persons and from what projects and locations have been Rif'd or do you anticipate may be Rif'd before the end of the Fiscal Year?

Answer: We have requested and received RIF authority for FY 1996 and FY 1997 from the Department and the Office of Management and Budget.

Forest Service policy is to use reduction in force as a last resort. Forest Service Research placement efforts have and will continue to focus on aggressive searches for job matches. We established a Research-wide Placement Team to coordinate and assist Stations in finding positions for surplus employees internal and external to the agency. The Stations have made efforts to terminate vacant positions, jointly fund positions with National Forest System where possible, reduce operating budgets, impose a freeze or reduce travel, and reduce purchases. Of the initial 235 unfunded positions created by our FY 1996 reduction, we have placed or lost 144 people. Fifty-three percent were placed within Research units and 21% were placed in the National Forest System. Twenty-five percent resigned or retired. We currently have 91 employees on the Employee Placement System list.

However, three Research Stations find it necessary to initiate a RIF. These Stations are: the North Central Research Station located in St. Paul, Minnesota; the Intermountain Research Station located in Ogden, Utah; and the Pacific Southwest Station located in Albany, California. The projects and locations that will be affected are:

Employees	Project	Location
	NORTH CENTRAL STATION	
3	RWO 4702	Houghton, MI
4	RWU 4151	Carbondale, IL
2	RWU 4107	St. Paul, MN
2	RWU 4152	Rhinelander, WI
	INTERMOUNTAIN RESEARCH STATION	
1	Station HQ	Ogden, UT
1	RWU 4251	Provo, UT
1	RWU 4301	Logan, UT
2	RWU 4101	Boise, ID
1	RWU 4154	Moscow, ID
	PACIFIC SOUTHWEST STATION	
1	Station HQ	Albany, CA
1	RWU 4301	Soda, Springs, CA
1	RWU 4403	Riverside, CA
1	RWU 4502	Albany, CA
3	RWU 4503	Albany, CA
1	IPIF-Adm	Honolulu, HI
Total 25		

240. Question: Do you find it harder to find alternative jobs for scientists and employees of the research branch than other Forest Service functions?

Answer: Yes, we have found that it is more difficult to find alternative positions for research scientists versus administrative personnel. Research scientists are highly educated (mostly Ph.D.s) and possess unique skills and qualifications which are not easily transferable to other Research units, the National Forest System or other Federal agencies. Researchers also tend to occupy higher grade levels because of their specialized skills and scientific accomplishments. The most likely place outside the Federal government to place scientists are at universities or within industry. However, many of these facilities are also facing financial difficulties which limit their ability to hire additional faculty or scientists.

241. Question: What is the administrative personnel level and funding utilized by the Research branch at the Washington DC headquarters and in the various Station Director's offices?

Answer:

Station	# of Personnel	Funding ($ in thousands)
PNW	26	2,350
PSW	42	3,284
INT	25	2,478
RM	44	3,365
NC	37	1,953
NE	27	2,322
SRS	41	4,602
FPL	59	3,405
IITF	25	1,374
WO	54	7,220
	380	$32,353*

*This figure includes all sources of funds. (Research, General Administration, other National Forest System appropriations)

These funding levels represent all program overview and administrative services provided by the Stations and Washington Office in support of accomplishing the Research mission. Costs such as statistical design/quality assurance oversight, printing, engineering, and computer services are included. The Washington Office and Station Directors' funds also include any field expenditures which would result in savings if paid by a Station or the Washington office such as the Current Research Information System, Current Awareness Literature Search Service and Radiological Safety Services.

242. Question: How does the research branch administrative overhead compare with that of other federal agencies, academic research institutions, and industrial research?

Answer: Administrative overhead rates vary from research station to research station depending on the geographical location costs, salary costs, etc. The average administrative overhead rate is 16.7%

We do not keep records of the administrative overhead rates of other federal agencies, industrial research and academic research institutions. Additional information provided in answer to question #222.

243. Question: What cooperative agreements and collaborations do you have currently with industrial forestry concerns? Please provide a table of Forest Service research and private forest industry collaborations including the relative role of the Forest Service.

Answer:

Collaborator or Name of Concern	**Forest Service Role**
Bruce Haissig Company	Develop state-of-the-art synopsis in juvenile wood research
Laminated Concepts	Development of timber bridge $71,775 standard plans and specifications for for superstructures
Philip R. Larson	Develop state-of-the-art synopsis of juvenile wood research
Norfolk Southern Railway Company	Performance of stress-laminated timber bridge designed for railroad traffic
West Coast Lumber Inspection Bureau	Assess improved grading procedures
Bemis Manufacturing Company	Research performance of formulations using recycled materials and wood fiber
E3 Design Group	Fire performance of wood-based panel products
Temple-Inland Forest Products Corporation	Obtain data on fire retardant being used in a composite product
Lumberjack RC&D	Composites from recycled paper fiber and low density polyethylene demo project
Michael H. West	Treating posts and bridge members
Western Red Cedar Lumber Assn.	Exterior wood finishes and their interaction with substrates
Abbott Laboratories	Utilization of sawmill residue
Collaborator or Name of Concern	**Forest Service Role**
Boise Cascade Corp.	Structure of wood pulp fibers
Indian Jute Industries' Research Assn.	Develop blends/alloys of polypropylene and up-graded jute
International Staple, Nail, & Tool Assn.	Determine validity of using NDS yield methods
Osmose Wood	Evaluate effects of ammoniacal copper citrate

Preserving, Inc.	
Masonite	Determine if backpriming or factory finishing improves durability and performance of hardwood siding
National Particleboard Association	Study volatile organic chemical emissions from particleboard
Potlach Corporation	Study powder and liquid
Sullivan Trails	Gather engineering data related to design, construction and performance of timber bridge
Western Wood Preserver's Institute	Evaluate CCA, ACZA, ACQ-B, and CDDC leaching from treated wood
Wisconsin Power & Light	Residual strength of utility poles
Wood Recycling, Inc.	Study wood/plastic formulations using recycled wood fiber
Forest Products Research & Development Center	Conduct field studies in different ecosystems
Patent Confidential	Several agreements and collaborations specifically with the Forest Products Laboratory are confidential in nature due to patent protection laws until developed

Collaborator or Name of Concern	**Forest Service Role**
Long-term Site Productivity	Lead scientific leadership
Northwest Tree Improvement Coop	Scientific Leadership Technical Assistance
Stand Management Cooperative	Scientific leadership and oversight, contribution of modeling capacity
Level of Growing Stock Study	Technical leadership, Major studies
Pacific Northwest Silviculture Res. Cooperative	Technical leadership, Major studies
Sealaska Corp.	Effects of selective harvest on residual vegetation and regeneration.

Sealaska Corp.	Permanent study plots on Sealaska lands on Prince of Wales Island.
Rayonier Timberlands	Influence of TM & predation by corvids on marbled murrelet in forests of Olympic.
Weyerhauser Corp.	Characterization of soil properties to evaluate the impacts of harvested related soil disturbance to soil properties.
Weyerhauser Corp.	Installation, operation, and interpretation of a spotted owl habitat cap. model.
Weyerhauser Corp.	Identify genetic mapping of complex traits in conifers
Georgia Pacific	Conduct workshops on crop tree management
Several small mills	Conduct workshops on alternative cutting practices near Parsons, WV
Mead Corporation	Study and demonstrate the effects of management practices on vegetation, wildlife, soils, and timber

Collaborator or **Name of Concern**	**Forest Service Role**
Several private forest consultants and indust.	Supplying inventory and analysis information
International Paper	Identified thresholds of pin cherry that inhibit regeneration of more desirable hardwoods Helped company determine economic return produced by pre-commercial thinning
Collins Pine	Developed system to inventory wildlife habitat on company lands as part of Green Certification program
Forest Oil Company	Convinced land managers that deer population and ferns were hampering the regeneration they desired on their land
Forgene, Inc.	Devise a genetic selection strategy to improve Christmas tree characteristics

Boise Cascade Corp.	Determine the Historic range of variation in dry Abies grandis habitat types and the role of fire.
Crown Butte Mines, Inc.	The development of reclamation and ecological restoration techniques of severely disturbed mine-lands in the New World Mines District.
National Council of the Paper Industry for Air and Stream Improvement	To develop models to predict sites of Shallow Landsliding in the Oregon Coast range
National Council of the Paper Industry for Air and Stream Improvement	To develop models to predict road erosion and sediment delivery below roads in the sediment delivery below roads in the Oregon Oregon Coast range.
Georgia Forestry Commission	Development of Vital Resource and Ecosystem Information to Evaluate the Availability of Georgia's Timber Resource Now and in the Future
Alabama River Woodlands	Southern Forest Resource Assessment Consortium Improving forest resource assessment research and application in the South

Collaborator or **Name of Concern**	**Forest Service Role**
American Forest & Paper	Southern forest resource economics and analysis research and application efforts
Boise Cascade Corp	Southern forest resource economics and analysis research and application efforts
Canal Forest Resources	Southern forest resource economics and analysis research and application efforts
Champion International	Southern forest resource economics and analysis research and application efforts
Georgia Pacific Corp	Southern forest resource economics and analysis research and application efforts
Inland Container Corp	Southern forest resource economics and analysis research and application efforts
International Paper Co.	Productivity Processes: Understanding the Basis for Improving and Maintaining Forest Soil Productivity
International Paper Co.	Southern forest resource economics and analysis

	research and application efforts
Mead Coated Board Div	Southern forest resource economics and analysis research and application efforts
National Council of the Industry for Air & Stream Improvement, Inc. (NCASI)	Research on the effects of air pollution and potential climate changes on Forest Ecosystems
NCASI	Southern forest resource economics and analysis research and application efforts
NCASI	Effects of Forest Management on Amphibian and Reptile Communities of Temporary Ponds in Pine Flatwoods
NCASI	A Generic Landscape Model of Economy & Ecology: Evaluating Effects of Management Activities on Timber Production & Wildlife
NCASI	Effects of Harvesting Intensity on Forest Productivity and Soil Carbon Storage/Southern Global Change

Collaborator or Name of Concern	**Forest Service Role**
Rayonier, Inc.	Southern forest resource economics and analysis research and application efforts
Union Camp Corp	Southern forest resource economics and analysis research and application efforts
Westvaco	Southern forest resource economics and analysis research and application efforts
Weyerhaeuser	Seed Orchard Research
Weyerhaeuser	Southern forest resource economics and analysis research and application efforts
Temple-Inland	Evaluating forest management impacts on sustainability of Southern Pine plantation ecosystems
Anderson-Tulley	Long-term effects of harvesting practices on floristic and structural diversity of bottomland hardwood stands
NCASI	Development of a bayesian belief network approach to risk assessment
NCASI	Field evaluation and impacts of forest

	management practices on water quality at the Lower Coastal Plain Substation, Camden, AL
NCASI	How streamflow sediment dynamics and channel morphology interact within high-gradient, low-order, mountain stream channels and in developing the research capacity to study this topic experimentally on real channels
National Particleboard	Research to seek to evaluate the effect of wood fiber properties within the fursish (bundle) to the performance of medium density fiberboard (MDF)
Temple-Inland Forest Products	Evaluating Forest management impacts on sustainability of southern pine plantation ecosystems
International Paper Co.	Evaluating Forest management impacts on sustainability of southern pine plantation ecosystems

Collaborator or Name of Concern	Forest Service Role
Willamette Industries	Evaluating Forest management impacts on sustainability of southern pine plantation ecosystems
NCASI	Long-term effects of harvesting practices on floristic and structural diversity of bottomland hardwood stands
International Paper Co	Evaluating Forest management impacts on sustainability of southern pine plantation ecosystems
Temple-Inland	Evaluating Forest management impacts on sustainability of southern pine plantation ecosystems
Willamette Industries, Inc.	Evaluating forest management impacts on sustainability of southern pine plantation ecosystems

Collaborator or Name of Concern	Forest Service Role
Bruce Haissig Company	Develop state-of-the-art synopsis in juvenile wood research
Laminated Concepts	Development of timber bridge $71,775

	standard plans and specifications for for superstructures
Philip R. Larson	Develop state-of-the-art synopsis of juvenile wood research
Norfolk Southern Railway Company	Performance of stress-laminated timber bridge designed for railroad traffic
West Coast Lumber Inspection Bureau	Assess improved grading procedures
Bemis Manufacturing Company	Research performance of formulations using recycled materials and wood fiber
E3 Design Group	Fire performance of wood-based panel products
Temple-Inland Forest Products Corporation	Obtain data on fire retardant being used in a composite product
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Osmose Wood Preserving, Inc.	Evaluate effects of ammoniacal copper citrate
Masonite	Determine if backpriming or factory finishing improves durability and performance of hardwood siding
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Willamette Industries, Inc.	Evaluating forest management impacts on sustainability of southern pine plantation ecosystems

244. Question: What would be the impact of the Forest Service dropping out of these agreements? Do you anticipate that industry would take on some of the burden?

Answer: Forest industries rely on the expertise of Forest Service scientists to provide important management information. Transferring technology and information to our industrial customers allows the agency to redeem its responsibilities outlined in the Forest and Rangeland Renewable Resources Research Act of 1978, to conduct research and disseminate scientific information about protecting, managing and utilizing forest and rangeland renewable resources in rural, suburban, and urban areas. Forest Service scientists have been instrumental in providing technical information on management practices that have proven beneficial on public and private lands.

Forest Service scientists often rely on cooperative agreements with industry to provide many in-kind services and on-the-ground treatments that are not available within normal Research Work Unit situations, i.e. various logging practices, stand treatments and site conditions etc.

Industry would likely continue some work associated with short term projects that have major financial benefits. Larger forest industries (i.e. Weyerhauser), might continue the work themselves, but it would become proprietary and not available to other land managers. Research costs would likely double if the Forest Service had to duplicate the research done by industry. Smaller industries, however, do not have the resources needed to conduct the research. The work needed by them would likely be terminated. In addition, higher risk, longer term studies would also likely be terminated.

It takes cooperative efforts among Forest Service, industry and university scientists to address the natural resource research needs of the Nation.

245. Question: To what extent has the Forest Service research branch been involved with discovering information that has subsequently been used to delay forest products harvest?

Answer: Forest Service Research provides information to resolve public policy issues in ways that can provide increased compatibility among resources. Forest Service Research provides mechanisms for implementation of laws. Selected research results have been used to challenge existing management direction. More importantly, scientific information has provided the knowledge base for decision makers to manage resources and to implement laws through informed decision making. Examples include:

(1) Research based knowledge of soil erosion and sediment movement provides the basis for designing timber harvest, road construction techniques and revegetation methods that can minimize sediment damage to fish habitat.

(2) Advances in our knowledge of the ecology of forest stands in relation to insect and disease pests provides managers with the tools needed to design silvicultural strategies which minimize pest damage. This knowledge also tells us we cannot prevent all damage, but it provides us with the ability to improve forest conditions.

246. Question: How does the research branch determine its research priorities? What interactions occur with public and private land managers and industry in determining research needs?

Answer: With the input of a cross-section of customers, we have developed a set of six attributes for prioritizing our current and future research issues and problems. These are: (1) Does the research involve a clear federal role? (2) Is the research important? (3) Do we have a comparative advantage or is someone else better equipped to do the work? (4) What is the likelihood of success? (5) Is the research cost-effective and are the outcomes worth the investment? and (6) Is there support for the work from our customers and the scientific community? In addition to meetings with our customers and use of these six attributes as program filters, we will soon initiate a customer survey to determine the usefulness and relevance of our research. This survey is being developed as part of the National Performance Review effort to improve our customer service. Questions are being designed to provide us with information about the timeliness and usefulness of our information, the responsiveness of our employees, and other attributes of customer satisfaction. It will be focussed on those individuals and organizations that use our information or that have an ongoing relationship with our research program. The survey form will be available in all Forest Service Research offices and will be included with publication request orders.

Forest Service Research scientists and managers maintain regular contact with a wide variety of land management, science, and environmental organizations. These include the National Association of State Foresters, the National Association of Professional Forestry Schools and Colleges, the American Forest and Paper Association, Wilderness Society, Society of American Foresters, American Fisheries Society, Wildlife Management Institute, the Nature Conservancy, and many others. Our contacts are designed to keep them informed about ongoing research and to provide an opportunity for suggestions on research priorities and usefulness of research results. We also have involved outside interest groups, professional societies, and university scientists in formal reviews of our program at the field level.

247. Question: How do you measure the satisfaction level of your research clients? What is that level currently and how does that compare with the situation 2 and 3 years ago?

Answer: The Research Stations within the Forest Service use several methods to measure the level of satisfaction of our clients. These methods include evaluation of requests for information, requests for services, and evaluation of our performance by customers. Strategically placed customer comment cards allow research users to comment on service and information received, our service procedures, satisfaction with facilities used, and optional specific suggestions. Most research locations have received uniformly high marks for our responsiveness, quality of information provided, and facilities used. For example, at the Forest Products Laboratory, more than 90% of respondents have given them the highest possible ratings on the four criteria addressed.

Research Stations conduct periodic reviews of their Research Work Units at which we invite a wide spectrum of clients and cooperators. They express their concerns, satisfaction, the relevancy of our research, and help shape the future direction of our research, ensuring its continued relevancy.

Our scientists are frequently requested to participate in workshops and symposia, to work on client projects such as the Columbia River Basin Assessment and the Southern Appalachian Assessment, or to provide direct assistance to national forest and other resource managers.

In the past, several research stations made special efforts to measure client satisfaction. For example, in 1990 and 1994, the Pacific Southwest Research Station contacted clients to solicit information about their performance. This resulted in adjustments to their research program. From December 1994 to March 1995, the Northeastern Forest Experiment Station also evaluated client satisfaction. Customer response cards were inserted into all station publications mailed to the public. In response to the statement, "Overall, I am satisfied with the content and quality of the publication", 99 percent said they "Strongly Agree" or "Agree". In response to the statement, "Overall, I am satisfied with the service I received", 99 percent said they "Strongly Agree" or "Agree." "Disagree" and "Strongly Disagree" received no votes on either question.

The Forest Products Lab, Madison, WI., meets annually with industry representatives from the American Forest and Paper Association and the Technical Association of the Pulp and Paper Industry to review research and provide feedback. In addition, the Forest Service's annual Forest Products Research Conference brings diverse audiences to Madison for opportunities to learn about recent advances in research. During these sessions, Forest Service staff ask research clients directly how satisfied they are with our research program.

Another key measure of satisfaction is the number of times we receive publication requests. During the past two years, the Rocky Mountain and Intermountain Forest Experiment Stations have provided 130,000 copies of Station publications, which is up from 84,000 copies a few years ago. Between 1993 and 1995, the number of requests increased from 27,806 to 45,017 for the Intermountain Forest Experiment Station.

The North Central Forest Experiment station has instituted an ambitious strategic communications planning effort at each research unit to strengthen the personal relationships of our scientists with the constituents of their research. This effort is yielding dividends in terms of improved understanding and support for our programs.

Current Situation and Outlook

Quantitative and qualitative feedback has consistently indicated a high level of satisfaction with our research programs. During the past year, however, research clients have commented on the slowing rate of research progress and the loss of expertise caused by declining budgets.

248. Question: What do you do to increase the timeliness, utilization, and helpfulness of your research?

Answer: The research stations use a wide range of activities to assure the timely implementation, utilization, and helpfulness of their research results. These include:

o Utilizing innovative product delivery vehicles that include the popular media, videos, computer software, and more recently, WWW homepages to more efficiently expose the public to our research, provide electronic access to research databases and publications, establish hyperlinks to other publications and information sources, and providing timely news items.

- Routine meetings between scientists and research managers and professional association members, state and local government representatives, land managers, and individual researchers to assess what the societal needs are and the capabilities of Forest Service research to address the issues.
- Hosting professional and technical meetings and publishing workshop proceedings with an emphasis on keeping these proceedings user-friendly and comprehensive descriptions of the state of scientific knowledge on subjects of key interest to resource managers.
- Conducting cooperative research with universities, private companies, and non-traditional partners to help target studies on useful and timely topics. Industry partners have been able to rapidly apply the results of cooperative studies in which they have been involved and we should expect similar in working with other non-traditional partners in the future.
- Obtaining patents on commercially viable technologies developed by researchers where licensing may be a critical first step before private companies will invest the resources needed to commercialize federally developed technology.
- Supporting units like the U.S. Forest Products Laboratory Technology Marketing Unit, Madison, WI., whose mission is to match users with the Forest Service's forest products technology and research capabilities in the areas of harvesting, manufacturing, marketing, conservation, engineering and recycling of forest-based products to ensure ready adoption of wood-based material technologies developed throughout the Forest Service.
- Supporting chartered research, management, and public institutes, centers, and cooperatives (e.g. Blue Mountains Natural Resource Institute, Cascade Center, Consortium for Sustainable Forest and Rangeland Ecosystems) as is being done by the Pacific Northwest Forest Experiment Station.
- Participating with managers and the public in adaptive management areas to design management experiments, as is being done by the Pacific Northwest Forest Experiment Station.
- Placing new research facilities on university campuses to provide a stronger scientific research environment for exchange of research ideas and research results.
- Developing performance evaluation systems that credit scientists for timeliness of research and its implementation.

- Including time in the agenda of supervisory reviews at our research units to meet with our clients on future research needs. The Pacific Southwest Research Station uses this process to direct their programs toward anticipated needs and ensure their timeliness. Alternatively, the Intermountain Forest Experiment Station uses a research planning model which identifies the highest research priorities for their research program.

- Assigning National Forest System specialists directly to some research work units to help facilitate application of research results on National Forest System lands.

- Instituting strategic communications planning efforts for research units to strengthen the personal relationships of our scientists with the constituents of their research. The North Central Forest Experiment Station says this effort is yielding dividends in terms of more timely implementation and utilization of research results.

- Developing strategic plans in cooperation with research users to identify the highest priority research activities for the next 3 to 5 years. For example, participants in the Northeastern Forest Experiment Station's efforts to develop a Station-wide strategic plan confirmed that research was high quality and covered those topics considered by the participants as high priority. High marks were also given for the handling of publication requests in a timely and professional manner.

249. Question: Please describe the peer-review scientific process as you see it should be practiced by Forest Service researchers. How does this differ from that of University scientists?

Answer: The peer-review scientific process should be considered an integral component of any quality assurance program for research. Quality assurance programs should ensure that all research data collected, synthesized, and reported are scientifically sound, of known quality, and thoroughly documented. Peer review should be used at the research conception (experimental design and proposed analytical procedures), and at the analytical and interpretation of results stages. In general, research results and findings are reviewed by a diversity of scientists both in and outside the organization to ensure that research results are produced with known precision, completeness, representation, comparability, and where appropriate, accuracy. The peer-review process, as part of quality assurance, should be monitored by scientists' supervisors and be available for higher level oversight. In general the process should apply to Forest Service and University research in a very similar manner.

250. Question: Is it desirable to maintain a distinction between Forest Service research and researcher's recommendations and policy and management decision makers within the agency?

Answer: We think it is essential to maintain the distinction between research and researchers and policy and management decisionmakers. We want researchers to provide information, analyses, and technical interpretations, and we do not ask them to provide management or policy recommendations. We expect policy and management decisionmakers to use the technical information provided by scientists as well as social, economic, and political information to make management and policy decisions.

251. Question: If individual researchers go from the scientific, discovery mode to the policy arena, how should the Congress and the public be able to determine when the scientists are performing science and when they are performing policy?

Answer: To distinguish between science and policy, Congress and the public should ask researchers the same questions we do. What data is your conclusion based on? Were the data and conclusions peer reviewed and/or published? To what degree is there a scientific consensus for your conclusion? What are the sources of error and uncertainty associated with your data? We do not ask our scientists to make policy decisions.

252. Question: What are the dangers of having scientists perform decision-maker functions?

Answer: There are two major dangers associated with having scientists perform decisionmaking functions. First, it may circumvent normal line authority or responsibilities as well as democratic decisionmaking processes. Second, it threatens the objectivity and credibility of the scientists and the science institution. The role of the scientist should continue to be to help describe a range of management options, evaluate potential effects and outcomes and to characterize or evaluate the environmental or socio-economic setting within which decisions are made. For precisely these reasons the Forest Service does not ask scientists to make management decisions or recommend policy preferences.

253. Question: Once scientists perform policy making functions and advocacy activities, how can they return to the research bench and maintain the objective outlook required to perform in the scientific method?

Answer: Scientists can function very effectively in the policy arena if administrators carefully circumscribe the questions scientists are asked and the roles they can play. If scientists become advocates for a particular management option or policy position their objectivity is certainly in question, and their scientific effectiveness to the agency may be lessened. However, if the scientific method is applied properly and studies are designed statistically correct, objectivity is greatly enhanced.

ADDITIONAL QUESTIONS FROM CHAIRMAN RALPH REGULA

SALVAGE

254. Question: Salvage has become something of a controversy this year. Last year you acknowledged that under the law passed by Congress and signed by the President "green trees can be harvested as a part of a salvage sale, if removal of the green trees improves forest or ecosystem health." You also testified that "the amendment definition is almost identical to the current Forest Service definition of salvage sales." If that was fully understood, why all the furor?

Answer: We believe some of the controversy is caused by combining two different provisions of the Rescissions Act. Section 2001 is titled "Emergency Salvage Timber Sale Program" and referred to as the "salvage rider" but it contains provisions for the sale of green timber also. The Act's provisions relating to the "318" (section 2001(k)) and option 9 sales (section 2001(d)) are not salvage at all, and are controversial because they relate to the sale of old growth green timber.

Also, sales being carried out under the Act are often referred to as "logging without laws" because the Act waives procedural requirements of environmental laws and the agency's appeal process. However, the President directed the agency to meet the intent of environmental laws unless the Act specifically prohibited them, such as in the case of appeals. Nonetheless, this description of the Act has developed and fed public controversy.

255. Question: Secretary Babbitt recently reported to the Committee on the success BLM is having in implementing the salvage provision. I quote from his report: "We have optimized salvage timber harvest as called for in Public Law 104-19 without setting aside the existing land management and environmental framework." BLM has actually exceeded its salvage target. Have you had the same success and if not why not and if so why the controversy?

Answer: We are also meeting planned objectives in the salvage program similar to the BLM. In FY 1995, the Forest Service exceeded it's expectations for salvage--the agency had planned to offer 1.7 bbf and actually offered 1.8 bbf. In FY 1996, the agency is on track to offer the 2.1 bbf planned. The basis for these figures are included in our February 29, 1996, report to Congress as required by Public Law 104-19.

256. Question: Again quoting Secretary Babbitt: "I have chosen to implement the act in a manner that protects natural resources as required by existing laws and Forest Plan standards and guidelines. I have used my discretion to call on the FWS and NMFS to help us optimize salvage timber targets as called for by the Act." Does the Forest Service not have the same discretion and flexibility and if not why not?

Answer: Yes, the Forest Service is operating under the same discretion as the BLM. The cover letter for our most recent report to Congress states:

"The Secretary has directed the Forest Service to work with other interested agencies to expedite salvage sales in conformance with existing environmental laws and forest plan standards and guidelines, except where expressly prohibited. This approach has allowed the Forest Service to optimize the salvage of dead and dying timber without compromising the health of forest ecosystems. The sale preparation process based on interagency collaboration and coordination (outlined in our August 9, 1995, Memorandum of Agreement) is working exceptionally well."

The Forest Service, like BLM, is working with the Fish and Wildlife Service and National Marine Fisheries Service to assure that the salvage program is implemented in an environmentally acceptable manner.

257. Question: How much has the Forest Service spent implementing the salvage law and how much has been generated in receipts?

Answer: Obligations charged to the Salvage Sale Fund, Sec. 2001(b), for the period July 27, 1995 through March 31, 1996 totalled $120,206,632. Collections from salvage sales qualifying under Section 2001(b) of P.L. 104-19 for the same period totalled $15,566,978 with sold value of $66,174,137. Not all sales sold have been harvested.

Receipts were deposited as follows:

National Forest Fund	$2,408,056
K-V Fund	$6,001,596
Salvage Sale Fund	$7,157,326
	$15,566,978

The above obligations and receipts do not include collections or sold values from Sections 2001(d)-timber sales on lands covered by Option 9, or from Section 2001(k)-award and release of Section 318 of P.L. 101-121. Collections and sold value exclude purchaser road credits.

258. Question: What problems have you encountered with the law both environmentally and administratively?

Answer: The primary problems we have encountered with the law relate to section (k), which provides for release of "Section 318" timber sales in Washington and Oregon. Our interpretations of that section have been challenged extensively in court. Some District Court decisions have been adverse to the government's position and have been appealed to the Ninth Circuit Court of Appeals. As a result, resolution of many of the sales has been delayed. Where we have complied with court orders to proceed with original sales, substantial public controversy has been generated. This has added to our workload especially in law enforcement efforts needed to provide for public safety at timber sale sites where public protests are occurring. In addition, the litigation and legal requirements of section 2001 (k) have added substantially to our workload.

259. Question: While I recognize that salvage and forest health are not the same, has the salvage provision contributed in any positive way to improved forest health?

Answer: Salvage done properly does and has contributed to the resolution of some forest health concerns. In some areas of the west where mortality rates are high and fuel loading is excessive, the salvage of dead and dying trees has helped to reduce woody debris that might otherwise fuel wildfires. In addition, the salvage efforts have been used extensively in the south as a treatment for southern pine beetle outbreaks. Trees infested by the southern pine beetle are removed from the forest before the insect larvae in them can grow and spread to surrounding trees. Southern pine beetle is currently at historically high epidemic levels, which makes removal of infested trees all the more important as a control option. It is critical that all appropriate safeguards be in place. Pressure exerted through the salvage provision could be disruptive if these safeguards are interrupted.

WAYNE NATIONAL FOREST

OIL AND GAS

260. Question: You also indicated you were proceeding on leasing 14,000 acres for oil and gas development. Did those leases go forward?

Answer: On September 27, 1995, the Bureau of Land Management held a lease sale in Marietta, Ohio, for 91 parcels comprising 15,014.59 acres. A total of 28 parcels containing 4,799.33 acres were leased as a result of the sale. An additional 8,467.10 of the acres offered for sale have since been leased through non-competitive applications for a total of 13,266.43 acres under lease. Total revenue from bonus bids and annual rentals was $45,425 for the first year.

LAND ACQUISITION

261. Question: What is the status of the land exchange between the Forest Service and the Ironton Country Club?

Answer: The Ironton Country Club is presently conducting the necessary archeological examinations on the historical sites on the National Forest tract. The Forest Service is completing the boundary survey of the National Forest tract and the Environmental Assessment (NEPA document). Upon completion of two items mentioned above, and consultation with the State Historic Preservation Office and U.S. Fish and Wildlife Service, a Decision Notice will be released. If no further endangered plant or cultural site mitigation measures are required, we will begin preparation for the exchange of deeds at that time.

262. Question: What has been the impact of a lack of land acquisition

funding on the Wayne?

Answer: The lack of acquisition funds affects the Forest's ability to protect important natural resources, provide improved recreation opportunities and consolidate ownership of National Forest lands. As the largest public land base in Ohio, the Wayne National Forest serves an important role in providing outdoor recreation. In addition, the land acquisition program provides the opportunity to restore many limited vegetative types and reduce administrative costs through land consolidation.

The Forest has been turning down some offers to sell land to the Forest Service. The recent ban on acquiring land in Washington, Monroe and Lawrence Counties has probably caused some landowners not to offer their land for sale. People usually stop offering their land for sale when they know acquisition funding is not available.

263. Question: Has the attitude with the respect to land acquisition changed in the past year or is there still vocal opposition to increased federal ownership in the Forest?

Answer: There is still some vocal opposition to land acquisition in some local areas. However, there is still strong grassroot support in most of the 12 counties covering the Wayne National Forest.

264. Question: Are there any high priority tracts that need to be acquired that would not prove controversial?

Answer: It is difficult to predict whether an acquisition will be controversial. Acquisition of lands in certain counties is more controversial than others. The highest priority tracts tend to be more unique, or larger in acreage, or have higher acquisition costs, and therefore, a high profile, which increases the chance of controversy. However, there are many key tracts available from willing sellers that would help meet the overall objectives of the Wayne National Forest's acquisition program which have a low probability of producing controversy.

SUPERVISOR'S OFFICE

265. Question: Last year you indicated ODOT had tentatively agreed to convey a 6-acre parcel of land as a site for a new supervisor's office. What is the value of this and what impediments exist to going forward?

Answer: The offer of the Floodwood Rest Area by ODOT still stands. The current proposal by ODOT is to convey a long-term lease to allow the United States to build a new supervisor's office for the Wayne National Forest and a visitor information center. The site would also become a Patrol Post of the Ohio State Highway Patrol. The property has not been appraised, but its value could easily exceed $75,000 for the land and another $25,000 for the existing improvements. The terms of the lease have not been finalized, but a meeting has been scheduled between the Office of General Council and a representative of the Ohio Attorney General to review the wording. ODOT has made it clear that if the Forest Service and the Highway Patrol are unable to secure funding, they will move forward with planned improvements to the site.

266. Question: What specifically is the need for a new office? Is the current space adequate or does something need to be done in terms of finding different space for the office?

Answer: The current Wayne Supervisor's Office is costly and inadequate in both its size and its location. The office currently houses 31 permanent employees and 8 Senior Community Service Employment Program employees. The reception area is small and congested, and the meeting room is unable to hold all the permanent employees. In some cases, two employees share a space large enough for only one. In addition, parking spaces are limited. Storage and work space is inadequate.

The current office location is not convenient or accessible to the public. The Floodwood Rest Area, on the other hand, is located on a major highway near National Forest land with safe and convenient access. A new office at this location would better serve the public.

267. Question: How long will the State wait for the Forest Service to accept the site? By delaying going forward does the Forest Service risk losing the donation?

Answer: We expect the lease between ODOT and the Forest Service to be finalized shortly after the two agencies agree on wording. The Forest Service has not delayed acceptance of the lease, and no time limit has been set by ODOT for acceptance. The proposed lease allows 3 years for actual construction to begin.

To delay federal funding will, however, make it harder to coordinate design and construction of the shared facility. The Highway Patrol expects funding in July 1996, with construction to begin early in 1997. It would be much easier to construct the entire facility in one phase rather than two. To delay construction of the federal portion of the project would create a hardship for the Ohio Highway Patrol.

268. Question: Is the site suitable for Forest Service purposes?

Answer: The 6-acre site is believed to be of sufficient size for the proposed project. The site is level to rolling with well designed entry points that provide the safest and most convenient access of all the possible sites along State Highway 33. Electric, telephone, and public water is available on site. Water lines would need to be upgraded, and natural gas is available nearby.

269. Question: Assuming donated land, what is the estimated cost of the office and would there be outyear savings from vacating leased space?

Answer: The Forest Service and the Highway Patrol will both realize a savings in effort and expenditures of public funds with this proposal. The cost of constructing a separate Forest Service facility is estimated at $3,062,000. A separate Highway Patrol facility would cost $1,367,000. A combined facility would cost an estimated $3,220,000 with the Forest Service's pro rata share estimated at $2,200,000.

Out-year savings are calculated by comparing the present annual rent of $55,000 with an average annual cost of maintenance, estimated at $10,000. Therefore, the out-year savings would be approximately $45,000 per year.

270. Question: Does the Forest Service need any legislative authority to accept the proposed donation?

Answer: The Forest Service does not need legislative authority to accept the donation or to co-mingle State and Federal funds for the construction if the land is deeded to the Forest Service. Timing is important however, and authority would be needed to mix state and federal funds for construction if transfer of the land does not take place prior to the start of construction. The two agencies plan to share reception areas, rest rooms, meeting rooms, locker areas, parking lots and look for other ways to create a unified facility that increases service to the public while cutting costs.

271. Question: What are the benefits of such a state/local/federal partnership and the advantages to the Forest Service and the visiting public of this type of arrangement?

Answer: The public will benefit by having convenient and safe access to visitor information and emergency services. Interaction between the public and the Forest Service will be easier. The Ohio State Highway Patrol will be better able to serve the public in emergency and law enforcement activities. The Visitor Center will be run with the help of the Athens County Convention and Visitor Bureau. It will provide information on tourism and recreation opportunities across Southeastern Ohio, not just on National Forest Land.

Both the Forest Service and the Highway Patrol will realize savings through the donation of the building site, construction of a jointly-occupied facility, and long-term maintenance of the site. Both agencies have looked without success to find an alternative site on the main route between Nelsonville and Athens. Because of the terrain and limited access highway, potential sites are very few in number.

272. Question: Last year you indicated that diminished service to the public was the biggest impact of not establishing a new office. Could you comment further on this and how does the lack of an administrative site diminish your service to the public?

Answer: The existing Forest Service Office is difficult to find and not physically accessible. The entrance door, hallways, and restrooms are not wide enough for wheelchairs. The reception area has only 72 square feet and is too small for display of brochures, maps, and interpretive materials. The conference room is not large enough to activities that require public involvement. Employee work areas and storage spaces are small and inefficient. Parking areas do not accommodate employee and Forest Service vehicles. Service to the public and employee morale suffer under these conditions.

273. Question: Last year you testified that the office would cost $3 million. Based on your proposed budget for FY 1997 it appears you are beginning planning this year with outyear costs of $2.3 million. Does this mean that $700,000 is being spent on planning and design in FY 1997 or has the cost estimate changed?

Answer: Planning and design has already begun using existing funds. The majority of the projected savings is realized by sharing the cost with the Highway Patrol. The total savings with a joint facility is $1,284,000. The Forest Service's pro rata share of the savings is estimated at $898,800. The Highway Patrol will save $385,200. Because of the savings from jointly constructing the site, the cost estimate for the Forest Service has been adjusted downward to $2,200,000.

274. Question: If sufficient funding were made available in FY 1997 could construction begin and could construction be completed? Are there any downsides to delaying construction?

Answer: With sufficient funds, construction could begin in FY 1997. The State's fiscal year begins July 1, and the Highway Patrol expects to receive funding for their share of the facility on July 1, 1996. They would like to begin construction in the spring of 1997. If the Forest Service share of the facility is delayed, there will be problems associated with designing and constructing the facility in two phases. The costs of design and construction will be higher for a two-phased project. The Highway Patrol will have to shoulder a larger burden of expenses for site preparation and installation of utilities and parking lots. It will mean that the facility will be under construction for a longer period of time with inconvenience to the Highway Patrol and the public.

CONSTRUCTION

275. Question: What is the status of the Stone Church Horse Camp construction?

Answer: The contract for the Stone Church Horse Camp was awarded in the 4th quarter of FY95 and construction began in the first quarter of FY96. Due to severe winter weather, the project has been shut down for the past 5 months. It is estimated that once the project is restarted that it will take approximately 60 days to complete.

276. Question: Last year you indicated you were using FY 1995 funds to stabilize the Ring Mill House. Has that been accomplished and what is the status of the National Register property?

Answer: The contract for stabilization of the Ring Mill House was advertised in the 4th quarter of FY95. The original government estimate for completion of the project was less than the $25,000 threshold that requires projects to be advertised in Commerce Business Daily. The bids received exceeded the threshold and funds available to complete the work. The contract will be readvertised in the 3rd quarter of FY96. The Forest is reviewing the project and is adding additional details and drawings to clarify some of the essential work in order to aid in ensuring that contract bids fall within allocated funding levels. The Forest carried over the funding for this project from FY95 to FY96.

277. Question: $178,000 was included in your FY 1996 budget for a waterline replacement at Lake Vesuvius [Recreation Area]. What is the status of this project?

Answer: The FY 1996 President's Budget originally proposed this project at $178,000. The FY 1996 congressional action adjusted the Regions project list which resulted in a lack of funds being available for the waterline within the FY 1996 budget.

However, late in FY 1995, it became apparent that the water system would likely not withstand another use season. At that point, the Forest re-evaluated the projects that it had tentatively planned to complete with a FY 1995 recreation construction earmark of $375,000 for the Wayne National Forest. It was determined that this list contained some lower priority projects which could be deferred in order to address the higher priority waterline replacement. We currently intend to use this FY 1995 carryover to take care of this project.

A contract has been awarded for the design of the waterline on the preferred location. Expectations are that the contract for construction of the waterline could be advertised and awarded in FY 1996.

278. Question: Your budget includes $300,000 to begin planning for rehabilitation on the Lake Vesuvius Dam which you indicate has been rated a Class I High Hazard dam. If funding was also provided for the rehabilitation, could it begin in FY 1997 and if so what are the consequences of delaying this health and safety project?

Answer: The rehabilitation work could not begin in FY 1997. NEPA analysis will be started in FY96 to select a preferred alternative. The $300,000 requested in FY97 is to design and prepare the selected alternative for contracting. The earliest start of construction would be FY98, provided funds for design are appropriated in FY97. Failure to bring the dam to standard means that the Forest is in noncompliance with state laws. There is potential for loss of life and property should the structure be overtopped or failure occur. The Forest, in conjunction with our Regional and Washington offices, is presently updating its emergency action plan for this structure. The cost to rehab this dam is currently estimated at $4.1 million. We are looking for cost effective alternatives as we move quickly to resolve the problem.

279. Question: Your budget also includes funding for two recreation projects at Lake Vesuvius [Recreation Area], reconstruction of the beach house and associated facilities and dredging in the boat ramp area. Are these projects as high a priority as completing the dam rehabilitation?

Answer: The dam rehabilitation project is the Forest's highest priority; however, the Forest is not yet ready to implement this project. At present, siltation of the boat ramp is to the point of limiting the ability of the public to load and unload boats for use on the lake. This small project is implementable in FY97. The beach house condition continues to deteriorate. Funds are expended annually to ensure that minimum health and safety guidelines are met. FY97 funds are requested for design to prepare for future reconstruction.

280. Question: Last year you indicated the Sand Run picnic area would be completed by the end of FY 1995. Has that been accomplished?

Answer: The Sand Run picnic area was one of several projects tentatively planned with the FY 1995 Wayne National Forest earmark of $375,000. However, as indicated above, the Forest determined that this was a lower priority than the Lake Vesuvius waterline replacement. We will schedule this project in priority order in the outyears.

281. Question: No funding was specifically earmarked in FY 1996 for cultural and historic resource surveys. Did that work continue in FY 1996 and if so at what level of funding? Is this a priority for the Forest and if so is an earmark necessary and at what level of funding?

Answer: For clarification, House Report 104-173 indicated $200,000 should be made available to the Wayne National Forest for Heritage activities. The $200,000 was not specifically stricken in the conference report, therefore the House action was considered to stand. The combination of unfunded earmarks and significant total program reductions provides additional challenges to Regional managers attempting to provide sustainable program levels on all national forests.

With the significant funding provided in FY 96, the Forest is pursuing an aggressive Heritage Resource Program. In FY 97, the Heritage Resource Program remains a priority for the Forest. Based on Forest priority and allocation provided to the affected budget line items, $220,000 would be used to continue the highly accelerated cultural and historic survey and building evaluations on the Wayne National Forest. The funding (from a number of budget line items as determined by the resource which benefits) would provide: a) cultural resource / archeological inventory ($96,000 - 4,800 acres); b) inventory and evaluation of existing structures ($9,000 - approximately 3 structures); c) conduct Historic American Building Survey/Historic American Engineering Record, HABS/HAER surveys for mitigative detailed documentation of historic structures that are either listed on, or eligible for the National Register of Historic Places ($40,000 - 5 structures); d) complete curation of Forest's cultural resource collection ($21,000); and e) $54,000 of associated overhead.

Presently approximately 34% of the Wayne National Forest's ownership has been inventoried for cultural resources. This funding level will allow for approximately an additional 2% of the ownership to be inventoried. It should also be noted that the highest priority for heritage dollars are to ensure that the Forest Service complies with various federal laws which govern heritage resources (e.g., National Historic Preservation Act, Archaeological Resources Protection Act, NEPA, etc.).

282. Question: Based on the Forest's trails master plan, what is needed in FY 1997 for trails and why is trail construction a high priority for the [Forest]? Do you have any estimates of trail usage on the Wayne?

Answer: The trails master plan established a desired future condition for the trail system on the Wayne National Forest. The Forest is moving cautiously forward with the construction of any new trails due to the leveling off or decrease in annual maintenance funds. The Forest is in the process of developing a maintainable trail system for a variety of users, such as hikers, ORVs, horseback riders, and mountain bikes. At the present time emphasis is being placed on bringing all existing trails up to minimum development and maintenance standards to address the $267 million national trail backlog. These standards are based on the type of use on the trail and appropriate development and maintenance levels assigned to each trail which are tiered to national standards.

The plan for FY 97 is to move toward the completion of the Kinderhook Horse Trail project in Washington County. This project has been in the planning stages for several years and the NEPA process is complete. Construction is to begin the summer of 1996. In addition the forest is working with the ORV users to implement the desired future condition for the ORV trail system on the forest. ORV trails receive a high amount of use, which in turn is causing extensive damage to the trails. The completion of all appropriate trailhead and trail signing will aid all of the trail users on the Wayne National Forest. The construction of trail bridges on the North Country Trail will provide for safe crossings on this national scenic trail. In addition, the Forest is planning on inventorying trail potential for the Timber Ridge and Kosmos acquisition tracts.

The Wayne National Forest provides 220,000 acres of recreation opportunities for the citizens of Ohio and the United States. An integrated trail system on the Forest provides the users with a variety of opportunities to access the Forest. The Forest is striving to provide a quality experience for a wide variety of trail users.

FY 1997 NEEDS

Kinderhook Horse Trail - Washington County -	$ 50,000

ORV Trail Implementation - Lawrence & Hocking -	$200,000
Trail Signing - Forest Wide -	$150,000
North Country Trail Bridges - Perry, Washington, Monroe	$200,000
TOTAL	$600,000

283. Question: What is the status of the Hanging Rock Road project? Last year you indicated there were some cost overruns. Have these been funded?

Answer: The contract release for this project was signed on July 13, 1995. Cost overruns totalled $79,744. The Forest was able to cover these cost overruns by using carryover recreation road construction funds from FY 94. The Forest had to forego enhancement of other recreation roads on the Forest in order to cover the unanticipated costs of the overruns.

284. Question: For the record, please provide a list of the Forest's high priority recreation construction projects and which counties these projects are located in.

Answer:

1: Lake Vesuvius Dam Rehab - Lawrence County - Rehabilitation of the dam to meet probable maximum flood standards.(FY97 dollars; $300,000 in FY97, $4.1 million unfunded)	$4,400,000 CNRF
2: Company Road, Monday Creek ORV Access - Hocking - Complete reconstruction of the primary access road into Dorr Run ORV area.	$ 400,000 CNRN
3: Survey & Design for Lake Vesuvius outyear projects A & E survey and design of Big Bend Beach, Boat Dock Area, Campground Rehabilitation.	$ 150,000 CNRF
4: Timber Ridge - Parking lot construction- Lawrence County	$ 50,000 CNRN
5: Hanging Rock Phase 2 - Lawrence County - Rehabilitate side access roads to fishing ponds and other associated construction work to complete Hanging Rock Dispersed Recreation Area Project.	$ 400,000 CNRF
6: Athens Recreation Paving - Hocking & Perry -	$ 200,000 CNRN
7: Reconstruction and rehabilitation of Big Bend Beach, Boat Dock Area, and Campgrounds at Lake Vesuvius - Phase 1	$ 200,000 CNRF

Trails and Trailheads

Kinderhook Horse Trail - Washington County -	$ 50,000
ORV Trail Implementation - Lawrence & Hocking -	$200,000

Trail Signing - Forest Wide -		$150,000
North Country Trail Bridges -	Perry, Washington, Monroe	$200,000
TOTAL		$ 600,000

RESEARCH

285. Question: Your budget proposes a $20,000 cut in the research on biotechnology in pest control. Specifically what is the impact of this proposed cut and is this purely budget driven?

Answer: The proposed $20,000 cut would reduce research on identifying DNA markers to distinguish between the Asian and North American strains of the gypsy moth. Although additional markers for distinguishing gypsy moth strains would be desirable, our unit at Delaware, OH has identified four effective DNA markers. We do not believe it will be possible to find additional markers without great expense nor do we believe it will be necessary. The current markers provide an accurate identification more than 99% of the time. As part of a continual review and assessment of research needs within declining budgets, this reduction was an appropriate choice. Budget cuts in fiscal year 1996 have forced us to scale back a number of programs in the Northeastern Forest Experiment Station.

286. Question: As this work was focused on Asian and North American gypsy moths what impact will this reduction have on our efforts to control these costs.

Answer: With the successful identification of four effective DNA markers to distinguish between the two strains of gypsy moths, the research phase of developing genetic markers for gypsy moth strains has been largely completed. However, the overall budget reductions coupled with inflation in the costs of doing this type of biotechnology research will result in delayed development of biological controls such as viruses to control gypsy moths.

287. Question: Have we developed any effective biological control agents for gypsy moths?

Answer: The Northeastern Forest Experiment Station has developed and the Forest Service has registered, a naturally occurring virus product, Gypchek, which is highly specific for gypsy moth. Gypchek is used in environmentally sensitive areas, such as areas with known T&E species which prey on insects. This product is not produced commercially due to cost of production. Currently, sufficient quantities of Gypchek are produced by the Forest Service, Research, and APHIS each year to satisfy demand. Our scientists are working on technology that would enable commercial production of the virus, which could make it inexpensive enough for more widespread use. New genetically engineered strains of the virus have been developed at our Delaware, OH biotechnology laboratory and at least one private firm is investigating the possibility of producing the virus in tissue culture and selling it commercially. Once production of Gypchek is undertaken commercially, the Forest Service will no longer be required to fund production.

Northeastern Station scientists have also made significant advances in developing Bt, a bacterium that kills gypsy moths. Working closely with several commercial producers of Bt, scientists have now developed Bt formulations that are so effective that they are competitive with chemical insecticides both in cost and efficiency. Because of this, Bt has been the material of choice for Federal-State cooperative suppression program administered by the Forest Service over the past few years.

TIMBER

288. Question: For the record please provide an update of the timber program on the Wayne over the past 10 years, i.e., timber offered, timber sold, timber harvested etc.?

Answer: The 10-year timber sale program by fiscal year is summarized in the following table. All sales offered were sold and there have been no "No Bid Sales." Volume harvested is not included because it can differ widely from volume sold. Each sale allows three years for timber to be harvested.

WAYNE NF TIMBER VOLUMES (MBF)

FY	Volume Offered	Volume Sold
1986	11,104	11,104
1987	7,636	7,636
1988	7,661	7,661
1989	7,160	7,160
1990	5,635	5,635
1991	3,587	3,587
1992	3,668	3,668
1993	347	347
1994	0	0
1995	1,500	1,500

289. Question: Why has the timber offered and sold dropped so precipitously in recent years, particularly FY 1994?

Answer: The decline in timber sales prepared and offered since 1986 has resulted from several factors. These include a shift in emphasis away from timber to other program areas by the Wayne-Hoosier Leadership Team, changes in the appeals process affecting timber sales, and the split of the Wayne from the Hoosier. The biggest drop was from FY 92 to FY 93 when two Decisions on timber sales were reversed by the Forest Supervisor and a third Decision was withdrawn. In FY 94 the Wayne was split from the Hoosier and several key positions were not filled until later in the year presenting some further delays in Environmental Assessment. In FY 95 the Environmental Assessment was completed for the Bluegrass Ridge Area and was upheld upon appeal.

290. Question: Last year you indicated you plan to maintain a program around 1.5-2MMBF. That is down from a high in FY 1985 of 12 MMBF and from the FY 1992 level of 3.668 MMBF. Could you explain why the timber program has fallen so precipitously in the Wayne?

Answer: The Forest Plan lowered the ASQ for the Forest to no more than 7.5 MMBF when it was implemented. Since the Forest Plan, the primary reason for the decline was the shift in emphasis away from timber production to other program areas. We have shifted funding into Silvicultural Examination needed for inventory of 40,000 acres of newly purchased lands.

291. Question: Last year you indicated you were in the process of implementing the first timber harvest using an ecosystem management approach. Did that sale go forward and how did the ecosystem approach work?

Answer: This was the Bluegrass Ridge project. One appeal was received and the Decision was upheld by the Regional Forester. No subsequent legal action was taken by either the Sierra Club or the Buckeye Forest Council. The Environmental Assessment received support from many individuals and organizations such as the Ohio Department of Natural Resources. The sale was successfully sold in FY 95 but no logging has yet taken place. The operators have indicated that they will begin in July of 1996 with the timber harvest. Subsequent activities to fully implement ecosystem management will not be done until after the timber sale is completed.

292. Question: For the record provide a 10-year breakdown of the timber volume harvested under clearcuts versus other harvest methods.

Answer: The clearcut and non-clearcut volume sold for the Wayne National Forest is as follows:

FY	Volume Sold	Volume Clearcut	Volume Non-Clearcut
1986	11,104	11,104	0
1987	7,636	7,636	0
1988	7,661	7,661	0
1989	7,160	5,202	1,958
1990	5,635	4,482	1,153
1991	3,587	578	3,009
1992	3,668	2,325	1,343
1993	347	0	347
1994	0	0	0
1995	1,500	0	1,500

Some of the sales sold after 1990 were planned in prior years and the direction to reduce clearcutting affected sales planned after that date. In FY 96 most of the projected volume will be from methods other than by clearcutting.

BELVILLE MINING CLAIMS

293. Question: As you know, in July 1993 the court of appeals granted Belville Mining Company the right to surface mine in the Wayne National Forest. Has Belville Mining Company been issued the permits required by the State?

Answer: No. Belville Mining Company is awaiting the issuance of their Clean Water Discharge Permit from the Ohio Environmental Protection Agency.

294. Question: If mining does occur in the Wayne how specifically will you work to minimize impacts to forest values and users?

Answer: We will work with the Ohio Department of Natural Resources to ensure proper design and enforcement of the reclamation plan required by the Division of Reclamation for mining operations within Ohio.

DELAWARE OHIO LAB

295. Question: Last year a fire at the Delaware Ohio laboratory did considerable damage to the facility and the work that was being accomplished at the lab. You specifically mentioned the work on Dutch elm disease had been affected. What is the status of repairs to the facility and what is the status of the Dutch elm disease research?

Answer: The remains of the fire-damaged headhouse and greenhouses have been cleared away, and a design for a new building has just been completed. We expect to have bids for the new construction by mid July and the new facility will be ready for occupancy by December.

The fire damage impacted our gypsy moth research not our Dutch elm disease research. The building contained two labs; one was used to rear gypsy moth for test purposes, and the other was used for research on genetic markers.

Dutch elm disease research was severely impacted by the government shutdown and furlough. Because our employees were unable to report for work during the furlough period in December and January, we lost large numbers of elm seedlings that were to be used for experiments this growing season. That loss means that those experiments can not be completed until another year passes.

Regardless, Dutch elm disease research is progressing well. Scientists are studying resistance to the disease at the molecular level, trying to establish the genetic basis for resistance. We have been crossing resistant strains of elms, outplanting them, and then examining them for resistance in the field. DNA samples from resistant and non-resistant specimens are then examined and compared for differences so that the gene or genes responsible for resistance can be identified. Scientists at the Delaware, OH lab have also developed a tissue culture technique for rapid screening of resistance to Dutch elm disease.

The future of our Dutch elm disease research is continually weakened by funding shortfalls and jeopardized by the erosion of funds due to inflation. Scientific research of this nature is costly and the effects of inflation erode the ability to maintain scientific and support staff. For example, one of the term employees assigned to the Dutch elm disease project will be terminated in August, 1996.

ADDITIONAL QUESTIONS FROM CONGRESSMAN JIM KOLBE

GRAZING PERMITS

296. Question: What is the current status regarding the issuance of grazing permits, specifically in Arizona?

Answer: PL 104-19, Section 504 requires that we immediately issue new grazing permits as they expire or are waived in Arizona as in other states. These permits are reissued with the same terms and conditions and if needed, are scheduled for NEPA analysis.

297. Question: How many grazing permits does the Forest Service issue annually in Arizona?

Answer: Permits are issued on a 10-year or term basis with a variety of starting dates therefore the number issued is not consistent from year to year. Although we track the number of permittees and active permits existing in each State annually, we cannot provide information at the national level on issued permits by state. However, the following illustrates the number of grazing permits that expired or will expire on Arizona national forests:

1995 - 152   1996 - 27   1997 - 13

In addition, approximately 10-15% of all active grazing permits are "waived" each year in favor of a new qualified applicant. Waived permits return to the government for reissue as a result of the sale of a permittee's base property, permitted livestock or both. Each case requires issuance of a new permit.

298. Question: Are there any grazing permits that are being delayed because an environmental assessment (EA) or environmental impact statement (EIS) has to be completed? How many permits are "being held up" and what environmental related work is being conducted? Will any grazing be permitted while the Forest Service is conducting the EA or EIS?

Answer: Consistent with PL 104-19, there have been no delays in issuing permits or allowing grazing due to incomplete documentation under requirements of the National Environmental Policy Act (NEPA). Any permits which expire or are waived will have new permits issued to replace them. NEPA analyses have been scheduled for future completion, also required by PL 104-19, with no interruption in permitted grazing.

299. Question: How does the Forest Service go about prioritizing the issuance of grazing permits? Which permits get processed first? In Arizona, when do you expect the backlogged grazing permits will be processed and completed?

Answer: Since all permits must be processed upon expiration, there is no procedure for establishing priorities nor is one necessary. Regions will, however, establish priorities for completing scheduled

NEPA analyses on allotments where such analyses are needed as required by PL 104-19. Priorities for these analyses will be based on resolving known resource conflicts and complying with applicable laws and regulations.

ADDITIONAL QUESTIONS FROM CONGRESSWOMAN BARBARA F. VUCANOVICH

SOUTHERN REGION RELOCATION

300. Question: Please provide a complete analysis of the leasing costs for the Forest Service's Southern Region Field Office, including: (a) the total amount of space leased by the Forest Service in its current location and the actual lease cost for this space; (b) the total amount of space the Forest Service, if relocated, would occupy in the Atlanta Federal Center (AFC) and the actual lease cost for this space; (c) the actual lease cost the Forest Service would be charged if it were to remain in its current locations, based on any proposals offered for this leased space; and (d) a comparison, over 30 years, of the actual lease cost the Forest Service would be charged if it were to be relocated to the AFC as opposed to the actual lease cost it would be charged to remain in its present location.

Answer: The following is an analysis of current and projected leasing rates for Southern Region Office: a) current location--107,446 sq.ft. @ $16.80/sq.ft. or roughly $1.8 million annually; b) AFC location--85,000 sq.ft. @ $28.00/sq.ft. or $2.4 million annually; c) current location, new lease proposal regarding management of the current facility on 1/11/96 submitted to the GSA a proposal for a 20-year lease for the Forest Service at an extremely attractive and favorable rate ($12.50/sq.ft. in years 1-5; $13.80/sq.ft. in years 6-10; $15.24 in years 11-15; and $16.82 in years 16-20). The annual cost for the existing 107,446 sq.ft. at the 1st year rate of $12.50 would be $1.34 million or a savings over the AFC in that year of roughly $1.0 million. This savings would be even more if, as is likely, the number of sq.ft. leased were reduced due to current downsizing efforts in the workforce. d) 30-Year Comparison--assuming constant cost dollars of $28/sq.ft. at the AFC over the 30-year period, the total cost of space for 30 years would be $71.4 million. Assuming acceptance of the new lease outlined in "c" above, and assuming an additional 10 year extension at the highest rate quoted, the 30-year cost for the Forest Service for the existing 107,446 sq.ft. would be $49.4 million, or a savings of $22.0 million. If a logical assumption is made that space requested in the current facility will decline by 20 percent by the 6th year due to downsizing efforts, the cost would be $40.8 million or a savings of $30.6 million.

301. Question: Please provide a complete analysis of all costs the government would incur if the Southern Regional Field Office were to be moved to the AFC including your best estimate for: (a) the cost of moving the "dispatch and telecommunications network and special equipment"; (b) the total cost to the Forest Service for moving the field office to the AFC including any costs the agency will incur in acquiring, or "breaking down" and reassembling furniture, workstations or other equipment; (c) the total cost the GSA will incur in moving your Field Office to the AFC; and (d) the total cost to the federal government of "building out" the space the Forest Service is to occupy in the AFC, and the Agency to bear this cost.

Answer: (a) and (b)--See cost breakdown below:

ESTIMATE OF ATLANTA FEDERAL CENTER MOVE COST
(cost to be covered from FY-96 and FY-97 budgets)

TAB FURNITURE COMPANY

Planning and Design	100 hours @ $45.00	$ 4,500
Moving 280 Workstations	280 @ $2,500/station	700,000
Purchase 28 Modular Units	28 @ $4,500/unit	126,000
Purchase 50 Workstations	50 @ $4,200/station	210,000
Subtotal $1,040,500		

HILLSMAN & ASSOCIATES

Redesign	100 hours @ $50/hour	$ 5,000

COMMUNICATION EQUIPMENT

New Local Area Network (LAN)	$ 250,000
New phone lines	25,000
Wiring of phones, printers, PC's, Data General & IBM Equipment	75,000
Subtotal 350,000	$

OTHER MOVE COSTS

Dedicated line from AFC to current location (DG equipment)	$ 2,500
Moving video equipment	2,500
Supplies for move	2,000
Salaries/per diem for AFC move coordinator and assistant (GS-13 & GS-7 assigned full-time in 1996 to coordinate move)	100,000
"Above Standard Items" or "Building Out" cost estimate	300,000
Subtotal 407,000	$

TOTAL ESTIMATED COST OF MOVE TO AFC FOR FOREST SERVICE $1,802,500

(of this total, roughly $0.5MM is in 1996 and $1.3MM in 1997)

(c)--The Forest Service does not have specific information relative to the GSA's portion of the move at this time. We do know that several items that will be moved are specialized and expensive to move. The moving of existing furniture will cost our agency roughly $700,000. Moving items such as Lectrievers (filing systems) will cost $16,000, a video conferencing system $15,000, a duplicating room of equipment

$5,000. The latter items will be reimbursed by the GSA but still reflect a cost to the government.

(d)--The specific cost of "building out" or "above standard items" for space the Forest Service will occupy at the AFC has not been provided by the GSA as yet, but a rough estimate provided was $200,000 to $300,000. These costs would have be be paid by the Forest Service in addition to our relocation costs.

02. Question: Please describe any special equipment housed at the Southern Regional Field Office and its functions including (1) any computer systems requiring special air conditioning or raised flooring; (2) any telecommunications or other equipment related to the dispatch of fire fighting and other aviation-related functions; and (3) any telecommunications equipment used for video-conferencing or other advanced purposes. In your description of each please include: (a) the original cost of installing such equipment, (b) the timeline for moving such equipment to the AFC, (c) the projected cost of moving such equipment, and (d) the lease rate GSA will allow the Forest Service for the space in the AFC to be occupied by the equipment.

Answer: Since the Forest Service is in the process of replacing our existing Data General Computer system with a new IBM system that does not require raised flooring and halon fire suppression systems, we do not plan to expend the money to put those in the new computer room at the AFC. Our plans are to lease a line from the AFC to the computer room in the existing facility until we no longer have a need for the Data General equipment. Space cost for the old computer room would continue to be paid, but would be less expensive than moving the equipment.

Currently, we do not plan to move the Dispatch Coordination Center to the AFC. Instead, it would be relocated to the Peachtree-DeKalb Airport, along with our pilots. Space is available at the airport and is currently being occupied there for aircraft operations.

Our video conferencing system is currently located in a first floor conference room of the existing facility. We plan to move this to a 9th floor conference room at the AFC, along with the receiving dish which will be installed at the top of the tower. An estimated cost is roughly $2,000 to move the equipment and another $3,000 to $4,000 to reinstall it. The system originally cost $49,250. The video conferencing system would be a part of the overall 9th floor move which is tentatively scheduled for shortly after 10/1/96.

The GSA has not provided a total cost for specialized space at the AFC, but the base rate is estimated at $28.00/sq.ft. and the normal cost for "special" space is about 50 percent more. This would mean that the conference room would cost about $42.00/sq.ft. or about $52,000 annually. The comparative cost for the existing facilities at the current location is approximately $30,000.

03. Question: Please describe what impact a move to the AFC will have on the Forest Service's ability to provide services to the taxpayers, to

include (a) any projected reduction in customer interface due to the proposed relocation, (b) any projected impact on the information center presently located on the first floor and available for use of the public, and (c) any inconvenience or difficulty Forest Service employees will experience in moving to, and working out of, the AFC.

Answer: Concerns have been expressed about the effects of the move on both the customers and public we serve as well as on our employees.

(a) Our customers will be adversely impacted due to a severe shortage of parking space, as well as the prohibitive cost for what little is available compared to the present location. The ability of the general public to locate the Forest Service in a downtown "high rise" environment is also questionable.

(b) Visitors will have great difficulty using the visitor information center as well due to restricted parking. Public transportation access will be somewhat better at the AFC due to rail service. Visibility in the downtown location will be limited, therefore, the number of "walk in" visitors could be reduced.

(c) A tremendous degree of concern has been expressed by most Forest Service employees concerning (1) the overall cost to the taxpayers of the move; (2) the lack of adequate parking facilities and increased cost of new space, (3) overall increased cost of commuting, (4) reduced working space, and (5) the location of the AFC in a high crime area. The inability to have personal vehicles available due to parking problems, etc. will limit the ability of employees to perform their assigned tasks as well as limit employees' ability to effectively use flexitime and sick leave. Doctor, dentist, and similar appointments which now only take an hour or two out of the work day with the employee driving themselves to work and paying nominal parking costs will now require an entire day lost from work due to not being able to ride with the car pool or find parking. Work schedules for some employees will have to be altered in order to avoid being in the area before sunrise or after dark.

ADDITIONAL QUESTIONS FROM CHARLES TAYLOR

SALVAGE LAW

304. Question: One goal of the Emergency Salvage law is to expedite salvage timber sales and minimize the value loss. The Forest Service timber sale schedule anticipates a majority of sales to be offered in the 4th quarter. What hinders you from moving the sales into the 3rd quarter?

Answer: We assume the question is referring to the total timber sale program, including both regular and salvage sales. With respect to FY 1997 salvage sales, half of the salvage program is scheduled to be offered in the first quarter while the emergency salvage program authorized by P.L. 104-19 is still in effect. Salvage sales are offered in the most expeditious manner possible.

The regular green timber sale program is affected by both the emphasis on salvage in the first quarter, and the lack of sales prepared in advance, that is, pipeline. Limited advanced sale notification requires that most sale preparation occur in the same year as the sale is offered. This preparation includes NEPA process and documentation, which has specific time periods for public involvement and appeals. In addition, many areas of the country, have only limited seasons in which field surveys and sale layout can only be conducted; this commonly effects what time of year sales are offered for sale.

305. Question: The provisions of the salvage law were designed to assure that commercial harvests can be accomplished before deterioration of the trees. This minimizes the cost to the taxpayer of removing fuels that would otherwise feed wildfire. What is necessary to enable the Forest Service to continue to accomplish expedited salvage harvests on a long term basis?

Answer: One of the significant factors that expedited salvage sales was the Memorandum of Agreement signed by the various agencys that regulate activities on national forests. The agreement established interagency Level 1 teams, that are currently working on salvage efforts with the purpose of expediting sale efforts. In addition to Forest Service employees, these teams have regulatory agency scientists participating in the planning of salvage sales. This has helped to eliminate and reduce potential conflicts that would require subsequent formal consultation. This process is helping to expedite Endangered Species Act consultations and is saving time in the preparation of future salvage sales.

We anticipate that some of the procedures developed through the salvage sale efforts will continue to be useful on future sales. We will work to incorporate these efficiencies into our normal salvage and green timber sale processes.

306. Question: Your figures estimate 2.101 billion board feet of salvage to be offered in FY 1996. How much have you actually sold thus far? How much has been harvested? Have any sales not received bids?

Answer: As of March 31, 1996, 0.51 bbf of salvage had been sold in FY 1996 and the national forests were working on 1.8 bbf. The remaining 0.3 bbf was yet to be initiated. As of the same date, six percent of the sales (four percent by volume) had received no bids, primarily due to market conditions. As of February 29, 1996, the national forests had harvested 0.3 bbf (harvest figures are currently not available through March 31).

Question: When you offer a sale but it does not sell, have you made any efforts to rework the sale so that the fuel load is reduced? If the timber is not removed, is the health and condition of the forest improved?

Answer: When a sale does not sell on the initial bid date, the forest first attempts to ascertain why there were no bids. Quite often, the problem relates to current market conditions or the way the sale is designed. Normally, the sale is held open for a period of time to see if potential purchasers express interest in the sale. If there is interest by a single buyer, the sale can be sold to that buyer at the appraised value. If there is no interest, work is done to ensure that any identified problems are addressed and, if appropriate,the sale is readvertised. If the sale is designed to improve forest health conditions and it never sells, then the agency would need to pursue alternate means to achieve the desired vegetative treatment, often at Forest Service expense. This could involve activities such as controlled burning, herbicide treatments, etc. and would require additional appropriated funding. When a sale does not sell, the decision to use alternate means to manage the vegetation is made on a site specific basis upon consideration of the environmental, social, and economic effects.

308. Question: What steps have you taken to ensure that more of the sales you offer are economically viable?

Answer: National forests are now required to complete an economic analysis prior to making major investments in each timber sale project. This information helps forests determine, early in the process, how to proceed with the sale. Where sales appear to be undesirable from an economic viewpoint, forests may elect to modify the sale to make it more cost effective, to drop the proposal from the sale schedule, or determine other means to accomplish resource objectives.

309. Question: How much economically operable salvage volume is currently available? How much do you plan to harvest in FY 1997?

Answer: The February 29, 1996 report to Congress, as required by P.L. 104-19, indicated that 4.5 billion board feet (bbf) of economically operable salvage volume would be offered between October 1, 1994 and December 31, 1996. The report indicates that between October 1, 1994 and February 29, 1996, 1.9 bbf had been sold and that 2.6 bbf was still available for sale. The national forests will attempt to offer this remaining volume for sale before December 31, 1996.

For FY 1997 the amount of salvage volume we plan to offer is 1.4 bbf. However, we cannot accurately predict how much will be actually harvested by timber purchasers in FY 1997.

310. Question: Is the problem with the accumulation of dead and dying timber getting worse?

Answer: There continues to be concern over the accumulation of woody material that could fuel new wildfires in national forests. The publication "Forest Resources of the United States, 1992" (Powell et. al., RM-234, USDA Forest Service, p. 2) reported the following:

> "Timber mortality increased substantially between 1986 and 1991, in all regions, on all ownerships, and for both hardwoods and softwoods. Nationally, the volume of mortality was up 24% from 1986 to 1991, from 4.4 billion cubic feet to 5.5 billion cubic feet--0.7% of the growing stock inventory. Annual mortality averaaged 4.2 billion cubic feet between 1962 and 1986. Softwood mortality was up 18% between 1986 and 1991 and hardwood mortality was up 34%."

The document "RPA Assessment of the Forest and Rangeland Situation in teh United States--1993 Update" (USDA Forest Service, Forest Resource Report No. 27, p. 7) reflects this same increase in tree mortality and identified forest health as a "potentially deteriorating resource situation" of growing concern. Current inventory data do not suggest any change in the mortality trends reflected in the 1992 report.

311. Question: If just the salvage provisions of the emergency salvage law were extended, how much additional volume could be offered?

Answer: At this point, given a normal year for tree mortality, we do not anticipate any additional salvage being available that can be recovered in an environmentally sound manner. The 1.45 bbf estimate for FY 1997 is based on projected recoverable salvage.

Extending the emergency salvage period through FY 1997 would continue the efficiencies gained through expedited procedures related to the National Environmental Policy Act (NEPA) analyses and administrative appeals. However, it would probably not produce any additional salvage timber unless tree mortality this summer (due to fires, insects, diseases, and weather related damage) is higher than normal. Agency assessments of salvable dead and dying timber indicate that additional volume is not currently available. The 1.45 billion board feet of salvage planned for FY 1997 anticipates normal tree mortality rates.

SOUTHERN APPALACHIAN ASSESSMENT

The Forest Service has consistently maintained that the Southern Appalachian Assessment (SAA) is merely an inventory of existing resource conditions and is not a decision-making exercise. However, the SAA's Roadless Area Inventory has indeed delineated potential roadless areas (753,000 acres) and has mapped the boundaries of these areas. Approximately 293,000 acres (39%) of the area identified as potential roadless are considered suitable for timber harvest under existing forest plans.

312. Question: Is it correct to assume that subregional assessments, such as the Southern Appalachian Assessment, are not intended to function as decision-making exercises and will not supersede management direction outlines within existing forest plans?

Answer: Yes, The Southern Appalachian Assessment will support the revision of Forest plans . The Assessment is not a decision document, and is not a required step prior to a forest plan revision.

313. Question: I understand that approximately 753,000 acres have been identified through the Southern Appalachian Assessment as potential roadless. Is this correct.

Answer: One hundred thirty nine (139) roadless areas have been identified on National Forests in the Southern Appalachians. They include 752,654 acres and comprise 61% of the roadless areas in the study area.

314. Question: I understand that approximately 293,000 acres, or 39% of the area designated as roadless through the Southern Appalachian Assessment are currently classified as suitable for timber harvest under existing forest plans. Is that correct?

Answer: Yes, 292,114 acres of the area identified as meeting roadless criteria are currently classified as suitable for timber harvest under the existing forest plans.

315. Question: If the 293,000 suitable acres represent X% of the suitable base within the area covered by the Southern Appalachian Assessment, can we assume that these acres will support approximately X% of planned timber sale activity?

Answer: No, the Assessment provides information, but does not make site-specific decisions. Forest Plans will determine what areas are suitable, and timber sale activities will be based on specific project level analysis.

WILDERNESS EDUCATION

In the past I have expressed concern about the Forest Service's wilderness education program, a module of which has been developed and is being implemented in my district. You have kindly provided a response to my earlier questions, but I am still concerned.

My greatest concern is that the target audience, children from kindergarten to 8th grade, may not be able to discern wilderness education as a specialized effort to impart an appreciation for wilderness, per se, apart from natural resources conservation. Young children could mistakenly perceive wilderness as an alternative or in conflict with multiple use management (and the array of activities that take place with multiple use). The agency's wilderness education program teaches children that humans are just one among many influences on ecosystems and appears to teach that the forest conditions at the time of european settlement were not affected by human management. It focuses on the importance of maintaining designated wilderness areas where the influence of humans are prohibited.

316. Question: Does the Forest Service coordinate the wilderness education program with the Natural Resources Conservation Education program conducted through the state foresters?

Answer: Yes. The Forest Service National Strategic Plan for Wilderness Education relies heavily on the Natural Resources Conservation Education Program (NRCEP) as an integral part of wilderness education development and delivery. Cost share projects with NRCEP have helped fund development of the K-8 Wilderness and Land Ethic Curriculum for the Arthur Carhart Wilderness Training Center, as well as teacher workshops nationwide. State employees are now involved in contributing to and pilot testing the 9-12 grade level wilderness education lessons.

317. Question: Does the wilderness education program acknowledge the active use of fire by Native American tribes to manage forests for thousands of years prior to European settlement?

Answer: The K-8 Wilderness and Land Ethic curriculum includes the strong reliance on and relationship with the land held by both Native Americans and early settlers. Some more regionally developed wilderness programs have specific lessons on Native American tribes use of fire. The Perspectives lessons in the national curriculum teach how this relationship with the land and the pressures of an increasing population necessitated the managed use of natural resources. One land use choice is to preserve some wild land as part of the heritage passed to future generations.

I see what could be interpreted as advocacy in one of the wilderness education program's goals which reads "to understand geological history, westward expansion, and the environmental preservation movement as perspectives on wilderness."

318. Question: Is it appropriate for the Forest Service to teach an understanding of the environmental preservation movement?

Answer: Yes. The environmental preservation movement that culminated in the establishment of the National Wilderness Preservation System, as well as other equally important land designations, is an important part of the history of the United States and land management.

Approximately 18% of the National Forest System is within the National Wilderness Preservation System. Just as it is appropriate for the Forest Service to teach an understanding of timber harvest, wildlife habitat protection, grazing and mining, it is appropriate to teach about the use of land as wilderness.

319. Question: Is the role of fire, insects and disease in wilderness ecosystems included in wilderness education?

Answer: The K-8 Wilderness and Land Ethic Curriculum has "borrowed" heavily from other environmental education programs, and included lessons on these topics. One example is a lesson based on the "Role of Fire" materials produced by the National Park Service and the Forest Service. The role of insects and disease, as part of any natural ecosystem, is dealt with in a general sense as appropriate for K-8 students.

FIRE SUPPRESSION

320. Question: What effect do you expect on the fire suppression efforts from a declining timber sale program? (Number of engines, people per engine, aircraft, etc.)

Answer: The overall decline in the Forest Service budget is reducing the number of personnel available for fire suppression efforts. Forest Service policy provides for all personnel, whether funded by the presuppression appropriation or not, to be available for fire suppression assignments depending on their training, qualifications, and experience. As the total budget declines, including timber funding, fewer people are available for fire suppression. The impact is felt in two ways. First the total number of personnel and equipment is reduced since some people hired for timber sale related activities, such as engines, bulldozers, and prescribed burning personnel, are also highly qualified fire suppression resources. The second impact is the reduction in the employment period. In many cases, personnel and equipment that were used at the start and end of the fire season for prescribed fire work, are not available. Aircraft used for fire suppression are not impacted directly since they are funded by the Wildland Fire Management appropriation.

321. Question: What timber accounts were used to pay seasonal firefighters when awaiting forest fires?

Answer: The only account used to pay firefighters awaiting forest fires is the Wildland Fire Management appropriation. Since all Forest Service personnel can be used for fire suppression during emergency situation, any funding that is used to pay salaries prior to fire duty, including the timber account as well as the BD and K-V accounts, ensure that personnel are available for suppression activities. However, the purpose for hiring these personnel initially is to meet the objectives of the other appropriations.

322. Question: It is my understanding that we need to move away from fire suppression and towards a fire management scheme that uses prescribed fire. However, the conditions of some of our forests is so poor that prescribed fires are not an option~~. What needs~~ to be done in the Inland West and other areas where large amounts of fuel must be

removed but which currently is not merchantable for pulp or solid wood facilities? How much of this type of material exists today?

Answer: The implementation of ecosystem management will bring increased recognition of fire's role and utilization of prescribed fire. However, this will not negate the need to suppress ignitions designated as wildfires with an appropriate suppression response. Until substantial progress is made in reducing fuel loading, the most effective fire suppression strategy will be to maintain an effective and efficient initial attack capability.

An analysis of the affected areas needs to be completed and forest plans updated in order to determine the current risk level for these areas and scale of the problem. Where pretreatment is needed before prescribed fire can be utilized, several mechanical methods can be used including thinning, that reduce or rearrange the fuel loading. Collaboration with insect and disease prevention and suppression efforts is essential. We do not have an accurate inventory of the situation; however, fire dependent ecosystems are at serious risk throughout much of their range. Ponderosa pine forests, one of the affected forested areas, range across some 40 million acres in the West.

23. Question: What are your long range plans for managing fire?

Answer: Our long range plans are outlined in the new Federal Wildland Fire Policy approved by the Secretary of Agriculture along with the other federal agencies with wildland fire responsibilities. Site specific plans are based on individual National Forest plans. Firefighter and public safety is the first priority. We will continue to maintain an effective and efficient initial attack organization in order to minimize large, costly fires. Due to the impact of the buildup of forest fuels and the costs associated with the wildland urban interface, we will increase efforts to use prescribed fire and other means to reduce fuel loading. We will also continue to focus efforts with our federal, State, and local cooperators to reduce or mitigate increasing impacts at the urban wildland interface.

24. Question: Do you think your 1997 request for fire management is adequate? What resources are needed for an effective, proactive fire management program?

Answer: The proposed budget for Presuppression and Fire Use provides funds to meet 80% ($272.8 million) of the most efficient level (MEL) fire protection program based on the National Fire Management Analysis System (NFMAS) model. Based on model projections, the total cost to the government for a total fire program,(including presuppression activities, suppression activities as well as net changes in resource values) is least when presuppression activities are funded at 100% of MEL ($341 million).

The proposed presuppression funding level of $272.8 is less than 1% above the FY 1996 level. Based on increased personnel and equipment costs, as well as reductions in other program funding areas, actual fire presuppression resources available for initial attack and other presuppression activities in FY 1997 will be reduced from the level provided in FY 1996. These funds support fire suppression activities and emergency rehabilitation (prevent soil loss and flooding) of severely burned National Forest System lands. This level of funding is well below the 10-year average annual expenditure for fire suppression of $296.4 million. Based on this average expenditure, the proposed budget has a short-fall in Suppression Operations of about $208.2 million. Should additional funding be required, funds would have to be advanced from other Forest Service appropriations.

GROWTH-HARVEST IMBALANCES

325. Question: What is the present growth rate of the national forest system lands?

Answer: The current net growth rate (total growth minus mortality) on the 84.6 million acres of national forest land classifed as productive for commercial timber, and not formally withdrawn from timber production by law or administrative action, is estimated to be 3.3 billion cubic feet or about 16 billion board feet. However, all of this 3.3 billion cubic feet is not available for timber harvest. Forest plans have allocated the lands within national forests for various management objectives. Currently, 49 million of the 84.6 million acres is available for timber harvest. Although we do not have precise figures at the national level for the net timber growth on these 49 million acres, a reasonable estimate is about 1.9 billion cubic feet or about 9.5 billion board feet.

326. Question: You have testified in Boise and at other congressional hearings that the imbalance of growth to harvest is a major contributor to forest health. What forest health consequences may be anticipated from such an imbalance?

Answer: An imbalance of growth to timber harvest is not necessarily a risk to forest health by itself. The consequences of excluding natural mechanisms of change and maintenance of vegetative communities, like fire, have contributed greatly. Throughout many forest types in the West, the lack of fire has changed the structural character and composition of forest stands such that the densities of trees in uncut stands is much greater. The consequences of this situation include increasing: 1) the risk of larger scale wildfires of greater intensity than seen historically; 2) the risk to watershed and water quality (this might be a short term effect); 3) the rate and extent of insect outbrakes or disease; 4) the possibility of losing some native vegetative communities and associated wildlife dependent on fire events that produced habitat 5) risk to loss of recreational value of some areas 6) risk to human communities located in forested areas and to the fire fighters sent in to protect them, and 7) costs to fire suppression.

327. Question: To balance the growth rate, either the harvest level must be increased or the growth rate decreased or both. Which do you

advocate?

Answer: The Forest Service does not consider the purpose of timber harvesting as being to balance growth. The reality is that net forestland growth (total growth less mortality and cull) varies over time, and that in 1991 had declined for all forestland ownerships nationwide relative to 1986, even though the overall trend since 1952 has been upwards.

Continued biomass build-ups cannot continue indefinitely in forest ecosystems. In much of the West, forest biomass recycles primarily through fire. Biomass buildups can also be reduced through timber harvest or prescribed fire. It is most likely that some combination of the two will continue to occur. The optimal combination can only be determined by an objective evaluation of the social, economic and environmental implications associated with alternative approaches.

SAWTIMBER V. PULPWOOD

328. Question: It is the expectation of most members of Congress that a harvest volume of 4.180 billion board feet is all timber. How much of the FY 1997 program could we expect to be actually sawtimber or high value pulpwood in FY 1997?

Answer: Approximately 80% of the FY 1997 timber offered for sale will be sawtimber or high quality pulpwood, 50 percent and 30 percent respectively. This estimate is based on FY 1995 volume sold.

FOREST INVENTORY ANALYSIS

329. Question: Does the agency plan to allocate sufficient funds this year to the forest inventory and analysis program to reduce the forest inventory cycle to 5 years in the South and 10 years in other regions? If not, why?

Answer: Current appropriations will be insufficient to reduce the inventory cycle to 5 years in the South and 10 years in other regions. While FIA remains one of the Agency's highest research priorities, recent reductions in other research areas have made it difficult to increase funding for this activity. Developing new technologies, such as the Annual Inventory Systems, offer great promise for improved inventory efficiency for future inventories. We are pursuing this research as aggressively as possible within our limited budgets while attempting to maintain a high level of commitment to keeping current inventory cycles as short as possible. Maintaining a balance between new technology development and continuation of current inventory efforts remains a dilemma, however, reducing the inventory cycle will not be achieved while there is static or declining funding in the FIA program.

330. Question: Do you have plans to establish a comprehensive forest health monitoring system nationwide?

Answer: Yes; the National Forest Health Monitoring Program is already established in 20 states, with plans to expand to 28 states in FY 1997 and to all states by 2001.

331. Question: If so, what is the current status?

Answer: The Forest Service has for many years monitored forest health through activities of the Forest Health Protection staff using aerial and ground surveys and qualitative observations in all 50 states. In 1990, the Forest Health Monitoring Program (FHM) was established jointly by Forest Health Protection, Forest Service Research, and State Foresters, to develop a more intensive and quantitative baseline using a series of permanent plots ('detection monitoring'), intensive surveys ('evaluation monitoring') and research ('intensive site monitoring') to better characterize forest health than in the past. This system is in 20 states currently (ME, NH, VT, CT, MA, RI, NJ, MD, DE, VA, WV, GA, AL, IN, WI, MI, MN, CO, CA, AND ID). Indiana and Idaho were added in 1996. We plan to add 8 more states in 1997 and are currently identifying the states to be added. As funding becomes available, we plan to add all 50 states by 2001.

Detection monitoring provides annual trends and status of forest health. Evaluation monitoring is used when detection monitoring indicates a special problem exists requiring more in-depth survey work. Intensive site monitoring is used to research underlying causes of forest health problems and is long-term in nature. The three-part integrated approach to FHM is one of its unique attributes.

332. Question: What information could be obtained from such a system? Could this information complement Forest Inventory and Analysis?

Answer: This information is critical in establishing a quantitatively reliable baseline of forest health information. It will indicate if the conditions of our forests are moving towards or away from a sustainable condition. It provides information on many of the variables that contribute to forest health--such as insect and disease occurrence, resulting damage to trees, and background information on soil, water and air quality that are tied to forest health.

We believe the two programs complement one another and currently are actively exploring how we can integrate the Forest Health Monitoring System with the Forest Inventory and Analysis system and the inventory approaches of the National Forest System. We are committed to integrating these 3 systems to achieve a more effective approach.

333. Question: What needed information would not be obtainable?

Answer: None.

334. Question: What resources are needed to reach a level of monitoring necessary to enable you to be proactive instead of reactive on forest health?

Answer: Implementation of the Forest Health Monitoring Program in all 50 states would require about $32 million per year. Approximately 40% would be utilized in Forest Service Research with the remainder for the Forest Health Management line item. The priority areas of Detection Monitoring and Evaluation Monitoring would require $18 million, and an additional $14 million would allow for the Intensive Site Monitoring component. The program is currently funded at $3.2 million, which provides for a minimal level of detection monitoring. A fully implemented program will include many large, heavily forested states not included in the program at present.

335. Question: How many professional foresters have left the agency in the past two years? Please provide the committee with the information on an annual basis, by region if possible. Given the reduction in personnel, can the Forest Service adequately implement the forest plans and a quality timber sale program?

Answer: Please refer to the answers provided for questions 78 and 79 for this information.

NATIONAL FOREST SYSTEM MANAGEMENT

336. Question: As your staffing levels have declined, has management overhead for the National Forest System increased or decreased as a percentage of your total budget for the National Forest System?

Answer: As staffing levels have declined, we have emphasized maximizing the amount of the budget making it to the Forest and Ranger District levels. Our efforts have been concentrated on reductions in staffing at the National level (Washington Office) and Regional Offices, with the expressed intent of reducing management overhead costs. As these efforts continue, the portion of management overhead represented by Washington and Regional Offices for the National Forest System should continue to decrease as a percentage of the total budget.

337. Question: Have you, or do you intend to, consolidate any offices at the ranger district or forest level, and what is the status of your effort to consolidate regional offices?

Answer: In 1995, we consolidated the administration of the San Juan and Rio Grande National Forests, the Medicine Bow and Routt National Forests, and the George Washington and Jefferson National Forests. In 1996, we consolidated the administration of the Beaverhead and Deerlodge National Forests. In all cases, the old Supervisor's Offices were kept open to continue to provide access for the public and minimize the need to transfer employeees.

The Washington Office is not currently studying any National Forest office consolidations, although it is likely that we will receive 2 or 3 proposals in the near future (2-3 months).

Since 1993, we have consolidated 24 ranger districts into other existing districts. About one-half of these consolidations led to office closures. We expect that this trend of about 4-8 district consolidations per year will continue for the next 2 years.

We do not plan to consolidate any regional offices or regions, or relocate boundaries, and we have no plans to study or porpose any of these alternatives.

REGION 8 OFFICE MOVE

338. Question: The Committee noted in the FY96 conference report that GSA is attempting to move your Region 8 office in Atlanta to a more expensive location. That move would have the effect of shifting scarce dollars away from programs and into overhead (rent). We directed the agency not to move without consent of the relevant committees. What is the status of that move? Has the agency done anything to avoid moving?

Answer: Only coordination and advance planning costs have been incurred to date. However, timing is becoming critical for either incurring move costs or being reassured that the GSA will be instructed to renegotiate the lease at our present Atlanta location.

The Forest Service has furnished all requested information regarding costs, etc. for the move. The Forest Service has also protested, in writing to the GSA, the increased costs associated with the move. At this point, the agency is in a difficult position in that we have been ordered by the GSA to move to the AFC.

339. Question: What would be the increased costs associated with moving?

Answer: For FY-1997 the increased costs of moving R8 Offices are as follows:

a) Estimated $1.1 million moving cost (assumes $500,000 to be spent in FY 1996).
b) One time "building out" cost or cost of "above-standard items" estimated at $300,000.
c) $2.4 million space cost at AFC (85,000 sq.ft. @ $28/sq.ft.)-an increase of $600,000 over current space.
d) A total of $900,000 for space cost at present location (lease runs through 4/1/97)
e) Total FY 1997 space cost and move cost is estimated at roughly $4.7 million or $2.9 million higher than not moving ($4.7 million above, less $1.8 million annual cost at present location). See answer to question #300 for a 30-year comparison of AFC space costs vs the 30-year cost of the new lease proposal from the current building management. The 30-year savings would range from $22.0 million to $30.6 million, depending on the assumptions of space required in the current location.

SONGBIRD DECLINE IN THE NORTHEAST

40. Question: Is the Forest Service planning to use the information gathered by their researchers when laying out timber sales in the Northeast?

Answer: Researchers are working closely with the New England Forests as they make decisions related to ecological effects. This consultation is only part of what has to be considered in selection of appropriate silvicultural treatment of forest stands. The information from research will also be used during planned revisions or amendments to Forest Plans related to future timber management.

CATEGORICAL EXCLUSIONS

few years ago, the Administration issued a final rule on Categorical xclusions, based on a categorization of years of environmental analysis that ave never resulted in a significant environmental effect. The actual data ollected indicated there had never been a significant determination for a estern timber sale with not more than one mile of road construction and no ore than two million board feed of timber. The final rule excluded sales with o more than one mile of road construction and no more than one million board eet of timber.

41. Question: Was that timber based on sawtimber or did it include biomass?

Answer: We assume that "the final rule" being referred to in the paragraph above is the Forest Service NEPA Handbook 1909.15. Chapter 30 of this handbook deals with Categorical Exclusions and includes a list of Categories for which a project or case file and decision memo are required. Category #4 of this list is "Timber harvest which removes 250,000 board feet or less of merchantable wood products or salvage which removes 1,000,000 board feet or less of merchantable wood products; which requires more than one mile or less of low standard road construction ... and assures regeneration of harvested or salvaged areas, where required."

As stated here, these numbers are based upon "merchantable timber", which could include, but may not necessarily be limited to sawtimber.

42. Question: With the actual analysis indicating two million board feet of timber would not have a significant effect in the West, the fact that the analysis considered only sawtimber, and the fact that biomass harvesting is environmentally protective and relatively noncontroversial, should the measurement for limitations of Categorical Exclusions exclude the non-sawtimber components of western timber sales?

Answer: Although the final rule includes sawtimber and biomass under merchantable wood products that may be categorically excluded in some cases, it is important to understand that timber harvests that meet these criteria may be categorically excluded only where it has been determined that there are no extraordinary circumstances (defined earlier in Chapter 30.3(2)) and no significant impacts resulting from the harvest. It is quite possible that a sale could meet the criteria for a categorical exclusion but still warrant an EA or EIS if significant impacts or extraordinary circumstances were involved.

ADDITIONAL QUESTIONS FROM CONGRESSMAN SIDNEY R. YATES

Of Note, For the Record

In some specific instances and questions that follow, the information requested by Congressman Yates is quite detailed and quite massive in scope. Much of the data requested does not exist at any level of organization in the Forest Service. For the data that does exist, it is outside our ability to collect, collate, analyze, summarize and present it in a meaningful way within the time frames that are required. We have also lost capability at the district and forest level needed to collect the data and still carry out the day-to-day work needed to manage the National Forests. Further, some questions would require significant studies to be undertaken which would be relatively costly and time consuming. Therefore, we are responding to as many questions as possible using data that is available within the time constraints.

For information related to any unanswered questions, please contact the Forest Service Program Development & Budget Staff at 202-205-0987.

MIDEWIN NATIONAL TALLGRASS PRAIRIE

During our hearing last year, the Chief told me that the FS would need $1,600,000 to operate the Midewin National Tallgrass Prairie (aka the Joliet Arsenal).

343. Question: How much is the FS requesting for operations at the Midewin Prairie in FY97?

Answer: The President's Budget for National Forest System (NFS) programs is not built with specific funding for individual units such as the Midewin Prairie. Rather a programmatic budget is proposed at the National level. The Midewin National Tallgrass Prairie is an important addition to the National Forest System and included in the budget for funding such units in the Eastern Region. As such, funding decisions for this project will be based on priorities determined by the Regional Forester for the Eastern Region. The Regional Forester's objectives will be to achieve a reasonable allocation across all units that best meets overall program objectives. At this point the President's Budget has not been allocated to our field units. Accordingly, the Regional Forester for the Eastern Region has not had an opportunity to make determinations about funding levels for various units within the Region.

I have been disturbed by reports that the FS is considering placing the Midewin under the Shawnee NF, instead of having it as a free standing unit as the authorizing language envisioned. I find this prospect completely unacceptable.

344. Question: Why does the Service fail to understand the clear intent of the authorizing legislation which called for the Midewin to be a separate, independent, free standing unit in the forest system?

Answer: The FS is not aware that any portion of the Act creating the Midewin National Tallgrass Prairie established a separate, independent, freestanding unit in the forest system. The Act simply established the Midewin National Tallgrass Prairie to be administered by the Secretary of Agriculture, and to be managed as part of the National Forest System in accordance with the Act, and laws, rules and regulations pertaining to the National Forest System.

We believe that we are in full compliance with the stated intent of this legislation, and are administering this new unit as we would any other created with similar legislation. For example, our Finger Lakes Unit in the State of New York is administered as a part of the Green Mountain National Forest in Vermont. For units as small as Midewin, it is not cost effective to create an entirely separate administrative unit with a staff that would duplicate existing administrative services that are available to adequately meet its needs from the Shawnee National Forest. During the long period of negotiations on this bill in which various members of the FS staff and the Office of the General Counsel participated, the issue of establishing a separate unit as proposed here was not raised.

TONGASS NATIONAL FOREST

The "deal" hatched between the Republican leadership and the Administration on the Tongass rider in the Omnibus appropriations bill calls for creating a "Southeast Alaska Economic Disaster Fund" that will channel $110,000,000 to Alaska in return for the rider being waived.

345. Question: While I strongly support removal of the Tongass rider, isn't the Administration simply bribing the Alaska Congressional delegation?

Answer: The Omnibus Consolidated Rescissions and Appropriations Act of 1996 (H.R. 3019) included a provision related to management of the Tongass National Forest (Section 325). Subsection 325(c) provided President Clinton the opportunity to suspend subsections 325(a) and 325(b) of the Act. On April 26, 1996, President Clinton determined that a suspension of subsections 325(a) and 325(b) was appropriate "based upon the public interest in sound environmental management and protection of cultural, biological, or historic resources."

346. Question: Doesn't this set a bad precedent for future conflicts between Congress and the White House?

Answer: In a bill incorporating several different agency appropriations, it is not possible to prevail on everything.

347. Question: Are you concerned that the "waiver" being given to the President for the Tongass rider on the Omnibus bill will lead to countless lawsuits and might ultimately lead to implementation of all or part of the rider?

Answer: President Clinton suspended sections 325(a) and 325(b) of the Act on April 26, 1996, in a Memorandum to the Secretary of Agriculture. As noted in the Memorandum, President Clinton determined the suspension "is appropriate based upon the public interest in sound environmental management and protection of cultural, biological, or historic resources."

348. Question: In light of the deal reached on Tongass, will you still proceed with your recently announced plans to reduce the amount of timber that can be harvested on the Tongass by 1/3?

Answer: The Supplement Draft Environmental Impact Statement for the Tongass Land Management Plan (TLMP) revision and draft revised forest plan are currently open for public comment. Based on those comments and the follow-up analysis a decision on the allowable timber sale level will be made in the Record of Decision. Until that time, no decision has been made.

349. Question: What is the rationale for reducing logging on the Tongass?

Answer: The Supplemental Draft Environmental Impact Statement and draft forest plan currently open for public comment present a range of alternatives with Allowable Sale Quantities (ASQ) of less than 50 MMbf to more than 600 MMbf. The public will play a key role in determining the level of timber harvest on the Tongass NF identified in the final decision.

The draft plan preferred alternative recommended by the Tongass NF Supervisor proposes an ASQ of 357 MMbf (sawlog plus utility), a reduction over the existing plan but similar to the recent average annual timber harvest. This reduction reflects an effort to balance the uses of the forest for recreation, tourism, mining, timber and fishing with protection of habitat and special areas for wildlife, fish and people.

350. Question: What is the status of your settlement on the AWRTA lawsuit that deals with timber sales on the Tongass?

Answer: In an April 29, 1996 Order, the federal district court for Alaska conditioned approval of the settlement upon two relatively minor changes. On May 9, 1996, the government and plaintiffs filed an amendment to the settlement agreement incorporating these two changes, and requested court approval of the amended settlement. In light of this, the court may approve the amended settlement quite soon.

PACIFIC NORTHWEST

Another aspect of the "deal" reached on the Omnibus bill is to delete those sections which give the Administration authority to buy back and provide substitute sales for old growth timber stand in the pacific northwest.

351. Question: Without this authority does the Service have any ability to stop the 318 sales from causing further environmental destruction?

Answer: On April 3, 1996, the Secretary of Agriculture issued an interim final rule that allows the Forest Service to replace timber on timber sales subject to section 2001(k) of P.L. 104-19 deemed to be potentially harmful to natural resources.' This rule is based on the Secretary's authority under the National Forest Management Act to exempt specified sales from competitive bidding where extraordinary conditions exist. Unless amended by Congress, it will continue regardless of whether authority such as that proposed in section 325 of the Balanced Budget Downpayment Act II exists. The agency has used this rule to modify some of the contracts already. Use of the rule requires mutual agreement by the timber sale purchaser to make the necessary contract modifications. Thus far, purchasers have been very cooperative in making the necessary adjustments to sales to protect the environment. In addition, the sales that affect nesting threatened or endangered bird species can be replaced using the provisions of section 2001(k) of P.L. 104-19.

KETCHIKAN PULP COMPANY

There has been some speculation that the Ketchikan Pulp Company is seeking special legislation from Congress to extend their 50 year timber contract on the Tongass for another 15 years. As I understand it, Ketchikan's current 50 year contract is a relic from the past and is considered an anathema by forestry experts because it virtually excludes all uses of the forest expect for timber harvesting.

352. Question: Given this, does the Service support efforts to have Congress extend Ketchikan's contract on the Tongass for an additional 15 years?

Answer: The Supplemental Draft Environmental Impact Statement for the Tongass Land Management Plan (TLMP) revision and draft revised Forest Plan is currently available for public review. We do not expect to reach a determination regarding extension of the Ketchikan Pulp Company contract until the plan revision is completed.

SALVAGE RIDER

In your hearing before us last year, you said the salvage rider would generate approximately $55 million in revenues to the Treasury from FY 95 through FY 98.

353. Question: How much money has gone to the treasury as a result of the salvage rider so far?

Answer: Receipts are transferred to the General Fund of the Treasury after the end of each fiscal year. Since the Emergency Salvage Sale provisions were enacted late in fiscal year 1995 very little, if any, actually went to the Treasury. Total collections from salvage sales qualifying under Section 2001(b) for the period July 27, 1995 to September 30, 1995 were $102,500.

Collections from salvage sales qualifying under Section 2001(b) of P.L. 104-19 for the period July 27, 1995 through March 31, 1996 totalled $15,566,978 and sold value was $66,174,137. This does not include collections or sold values from Sections 2001(d), timber sales on lands covered by Option 9, or from Section 2001(k), award and release of Section 318 of P.L. 101-121. Collections and sold value exclude purchaser road credits.

Receipts were deposited as follows:

National Forest Fund	$2,408,056
K-V Fund	$6,001,596
Salvage Sale Fund	$7,157,326

354. Question: How many retired and former employees has the Service had to reinstate in order to implement the salvage rider?

Answer: One retired Forest Service employee has been rehired to assist with implementing the salvage rider in the the Pacific Northwest Region.

355. Question: What percentage of timber sales occurring under the salvage rider are being offered under the scaling method?

Answer: Approximately 60 percent of the timber sales under the salvage rider are being offered under the scaling method.

356. Question: How does this compare with the rest of the non-salvage timber program?

Answer: About 15 percent of the non-salvage timber sales are offered under the scaling method. This compares to approximately 60 percent of salvage sales being offered under the scaling method. The non-salvage sales that are scaled are thinning sales that use weight scaling and the long-term sale in Region 10.

TIMBER THEFT

357. Question: Please tell the Committee what is being done to increase the effectiveness of the Service's law enforcement activities, specifically as it relates to the enormous problem of timber theft?

Answer: The Law Enforcement and Investigations Staff (LE&I) is making substantial progress in the investigation of timber theft allegations. For example, in FY 95, 222 cases of felony timber theft were investigated with 76 cases brought to final conclusion. This compares to 116 cases investigated in FY 94 with 65 cases brought to final conclusion. The LE&I staff is working closely with Timber Management to develop a comprehensive timber theft prevention, detection and investigation training program for law enforcement and timber management personnel. Additionally, the Office of Inspector General has completed an audit of timber sale administration and has made recommendations to reduce theft vulnerability. These recommendations are being promptly implemented.

358. Question: You have said the Timber Theft Task Force was effective in investigating cases of timber theft. If this is true, why didn't you extend the Task Force instead of letting it disband in 1995?

Answer: The Timber Theft Task Force (TTTF) did have some significant successes. Lessons learned from this pilot effort were incorporated into current law enforcement strategies. Several factors contributed to the decision to disband the group: 1) The TTTF was established with a three year charter to investigate timber theft in Washington, Oregon, California, and Alaska. However timber theft occurs on a nationwide basis. Accordingly, a national focus was necessary. 2) The TTTF was established to function independently from local line management in order to remove any actual or perceived interference in timber theft investigations. With establishment of the straight line reporting structure for law enforcement, all employees in the organization function independent of line. Therefore, a primary basis for the existence of the TTTF was no longer an issue. 3) Law Enforcement and Investigations appropriations have been reduced $4.3 million in the past three years. Elimination of an independent TTTF saved approximately $1 million. With an improved record of timber theft prosecutions on a nationwide basis and incorporation of the straight line reporting structure into standard LE procedures, the decision to eliminate the TTTF was warranted.

Six members of the Service's disbanded Timber Theft Task Force published a report with the Government Accountability Project which said the Service deliberately covered up massive timber theft by the Weyerhauser Corporation. An Associated Press article on this report says the Service uncovered timber theft by Weyerhauser running in the hundreds of thousands of dollars and instead of reporting and punishing Weyerhauser, the Service covered this crime up by creating a phony paper trail for the company.

359. Question: Is this true? Are Forest Service employees colluding with timber companies to defraud the public?

Answer: Allegations made by six employees through the Government Accountability Project (GAP) and the Public Employees for Environmental Responsibility have been thoroughly researched. The Forest Service has prepared a detailed analysis of the allegations. In all but a few cases, the allegations were exaggerated and misleading, or completely false. The allegations have been made by six employees who are unhappy with the Agency's decision to eliminate the Timber Theft Task Force. Their allegations have been thoroughly reviewed by the USDA Office of Inspector General, and found to be unsubstantiated.

Several isolated cases where Agency employees have been in collusion with the timber industry or actions to defraud the public have been pursued swiftly and seriously by the Forest Service. In one recent investigation in Texas, three employees were convicted of felonies (one employee dealt with administratively) associated with collusion with a purchaser. Again, this involvement is very isolated.

AGENCY PRIORITIES

360. Question: With all of the competing and important needs in your agency for recreation, research and forest management, how can you justify a request for an increase of $1,418,000 (for a total request of $190,000,000) in the timber sales management program?

Answer: The President's FY 1997 budget request for the Forest Service has been carefully prioritized and balanced to focus on the most critical needs at hand, while recognizing the limits on available funding. When compared to the FY 1996 enacted appropriation, there are many important Forest Service programs that have either been constrained to minor increases, no increase, or even small decreases in the FY 1997 budget request. Increased pay costs for employees and inflation will consume a large portion of the proposed increases in many program areas, including the timber sales management program. The increase in the timber sales management program is less than 1% above the FY 1996 enacted funding level.

361. Question: It is quite likely that our 602(b) allocation will be reduced this year, as will the Service's total appropriation. Given this, would you rather the funds be cut from forest system or state and private forestry and forest research?

Answer: The President's FY 1997 budget request for the Forest Service has been carefully prioritized and balanced to focus on the most critical needs at hand, while recognizing the limits on available funding. Key budget priorities include funding related to research, forest health management, restoring deteriorated ecosystems, and the ecologically sustainable production of goods and services.

SECTION 318 SALES

362. Question: What problems have arisen as a result of the release of the Section 318 sales on the efforts to preserve salmon populations in the Pacific Northwest?

Answer: Timber harvested in the Pacific Northwest since Section 318 was either: 1) harvested prior to the Recission Bill, or; 2) harvested since the Recission Bill after applying criteria developed to protect aquatic values, such as watershed, riparian and fisheries. Those sales that did not meet the criteria were modified to do so, primarily by increasing riparian zone widths.

We have placed high priority on finding replacement volume that meets forest plan standards and guidelines for those sales released, but still suspended. If we are not successful in locating replacement volume for these released sales we will have to re-assess potential impacts.

Thus far, forests have had good success in making contract modifications and replacing streamside timber to protect watersheds and fish habitat. These modifications are made with the mutual consent of cooperative timber sale purchasers.

MIDEWIN NATIONAL TALLGRASS PRAIRIE

I am sure you are aware of language in the Statement of the Managers which accompanied the FY 96 conference report which directed the Service to seek a reprogramming in order to fully fund the Midewin NTP for the remainder of the fiscal year. To date that reprogramming request has not been submitted to this Committee.

363. Question: When can I expect the FS to submit a reprogramming request for the Midewin NTP?

Answer: The Forest Service does not expect to submit a reprogramming request for Midewin NTP. The projected FY 1996 costs of $1.6 million were based on the Forest Service becoming responsible for management of the area on October 1, 1995. Since the Forest Service did not obtain ownership until midway through FY 1996, the $800,000 allocated to management of this area by the Eastern Region was an appropriate funding level for FY 1996.

NORTH CENTRAL RESEARCH STATION

I remain deeply disappointed by the Service's position on naming a permanent Director to head the North Central Research Station. I am aware of the Service's intention to merge the North Central and Northeastern regions and I believe this is a serious mistake which I intend to rectify.

364. Question: Why are you thinking about merging regions in the research division but not in the forest system?

Answer: Several factors have contributed to the decision to consider and evaluate potential consolidations of Research units. First, a high proportion of our total costs are in permanent salaries and facilities. Therefore, even small budget reductions can result in loss of people or laboratories. For example, our budget has declined in constant 1980 dollars between 1980 and 1997 (from $95.9 million in 1980 to $91.7 million in the President's FY 1997 Budget). As costs of conducting research have increased above the general inflation rate, we have lost more than one-third of our scientists (from 964 in 1980 to about 600 today). Therefore, it is essential that we explore all opportunities to reduce overhead costs and maximize the funding at the scientist level.

Second, the National Performance Review calls for significant reductions in administrative and management positions (GS-14 and above, including Senior Executive Service). In order to use our administrative and management ceilings most effectively, we have looked at consolidations of units at higher organizational levels where these management positions are generally located.

Finally, modern technology and transportation systems provide opportunities to conduct business in ways not available only a few years ago. Electronic processing of information, in particular, has allowed centralization and consolidation of processes.

Consolidations are occurring at all levels of the research organization to provide administrative efficiencies and to maximize funding at the scientist level. For example, proposals now before the Congress would reduce the costs of the Washington Office research organization by consolidating six program staffs into four and by reducing staffing from 73 to 59 Full Time Equivalents (FTE's). In addition, staff reductions between FY 1995 and 1996 have reduced the direct cost of the Washington Office staff organization by $1,000,000.

During FY 1996, we consolidated the Southern and Southeastern Forest Experiment Stations and 9 Research Work Units. Even with a relatively level budget as proposed by the President, we anticipate a continuing adjustment, termination, or consolidation of 12 Research Work Units to gain administrative and managerial efficiencies in 1997.

The Forest Service proposed to realign the boundaries of several National Forest System regions as part of agency's reinvention effort. However, this proposal was not approved by Congressional committees on appropriations.

365. Question: Does the Service put a higher priority on the forest system than on research?

Answer: The Forest Service values all of its programs and could easily argue that most are underfunded. The complexity of issues, the responsibility associated with managing 191 million acres, and other factors and priorities dictate funding levels, especially in times of diminishing budgets. However, National Forest System and State and Private Forestry leaders actively support the need for the Forest Service Research program. We continue to target the Research program to address the highest priority issues, meet the needs of a broad array of customers, and seek administrative efficiencies to maximize funding at the scientist level as we respond to constant or declining budgets.

There is another activity in the Research program that I find unproductive, and that is the practice of having the regions absorb the cost of Congressional earmarks. This contrary to every other division in the Service which spreads the cost of paying for earmarks out across-the-board.

366. Question: What is the rationale behind making the regions absorb earmarks?

Answer: In times of declining budgets, the only way to deal with earmarks is to take the funding from some other program. In order to minimize disruption in important research in other regions of the U.S., we believe it is best to limit reallocations to cover earmarks to the unit where resources are being committed in response to the earmarks. In every case, the decision on where to take the reduction is left to the local manager (Station Director).

367. Question: Does your request for the Evanston Research Work Unit (NC-4902) provide sufficient funding for the Unit to continue to provide critical research support for important projects?

Answer: Our request of $853,000 for the Evanston IL Research Work Unit (NC-4902) is at the same base level as requests for recent years and will enable the Unit to conduct research that will support the Midewin National Tallgrass Prairie, the Ecosystem Management Project in the Greater Chicago Metropolitan Area, the Chicago Region Biodiversity Council, and the Urban Resources Partnership.

Specifically, I am thinking of the Midewin National Tallgrass Prairie, the Ecosystem Management Project in the Greater Chicago Metropolitan Area, the Chicago Region Biodiversity Council and the Urban Resources Partnership. The Evanston Unit has an extremely able staff and they have played a key role in getting these efforts underway and I would hope the Service recognizes the importance of their continuing research support.

URBAN FORESTRY CENTER

368. Question: Does your request for the Urban Forestry Center for the Midwestern States provide sufficient funding for the Center to continue its vital technology transfer efforts in urban forestry? That transfer is critical to effective management of the significant urban forest resources of the midwest and beyond. The Center staff has played a key role in getting critical initiatives underway such as the Ecosystem Management Project in the Greater Chicago Metropolitan Area, the Chicago Region Biodiversity Council and the Urban Resources Partnership. A strong Urban Forestry Center is critical for the Continued success of these and other high priority efforts.

Answer: In FY 1997, the Urban Forestry Center will continue to receive the same level of funding as it received in FY 1996 ($100,000). This will allow it to continue the important technology transfer work it pursues.

STATE AND PRIVATE FORESTRY PROGRAM

369. Question: What does your request include for pest prevention and suppression?

Answer: The FY 1997 budget includes $3,329,000 for prevention and suppression on federal and Tribal lands and $7,100,000 for prevention and suppression on non-federal lands (State and private lands).

370. Question: How does this amount compare to the five-year average for federal and cooperative lands?

Answer: The FY 1997 budget amounts represent 23 percent of the 5-year average annual pest suppression expenditure for federal lands and 60 percent on non-federal lands.

371. Question: Are there any available pest prevention and suppression funds for FY 97 from the Emergency Pest Suppression program?

Answer: No. The Emergency Pest Suppression fund was eliminated in the FY 1996 budget. We anticipate that carryover funds from prior years will be completely used for FY 1996 activities.

372. Question: With only about half of the needed funds for prevention and suppression activities being requested, what will be the impact on forests?

Answer: The FY 1997 budget will allow the Forest Service to meet 23% of anticipated pest suppression needs on federal lands. Overall, reduced prevention and suppression efforts will result in some decline in the health of the Nation's forests on federal lands through the damage and spread of forest pests.

On State and private lands, about 60 percent of the federal share of suppression projects will be met. States, local communities, and landowners will have either to reduce suppression projects or to fund a higher percentage of the total suppression cost in FY 1997. It is likely that some high priority suppression projects on State and private lands will not be met in FY 1997.

373. Question: I understand that you are requesting $15,500,000 increase for SIP. In view of the significant shortfall in funds for prevention and suppression, doesn't this create an imbalance in your request?

Answer: The FY 1997 budget request for the Stewardship Incentives Program will restore the program to historical levels (with the exception of FY 1996). A significant backlog of SIP requests exists to which the agency has been unable to respond. The shortfall in pest suppression funds is attributable to the elimination of the Emergency Pest Suppression Fund in FY 1996. The President's Budget will provide funds to meet only 23% of anticipated suppression needs on federal lands and 60% on cooperative State and private lands.

The FY 1997 budget proposal, for all State and Private Forestry programs, is formulated to balance different areas of necessary program work, and is based on the priorities among all discretionary programs. A higher funding level for any particular program area would require an offset of lower funding for other program areas, which the administration considers of higher priority.

374. Question: What would be a threshold level for SIP funding?

Answer: The FY 1997 budget request for the Stewardship Incentive Program will restore the program to the historical levels (with the exception of FY 1996). A significant backlog of SIP requests exists to which the agency has been unable to respond. SIP serves to encourage up-front capital investments by private woodland owners, from which their grandchildren but not they themselves will profit. Current tax structures at both the federal and state level discourage such investment, and even discourage family retention of woodland holdings, so the SIP program plays an important role in promoting sustainable management of the nation's non-industrial private woodlands, which represent two-thirds of the nation's forests.

The FY 1997 budget proposal, for all State and Private Forestry programs, is formulated to balance different areas of necessary program work, and is based on the priorities among all discretionary programs. A higher funding level for any particular program area would require an offset of lower funding for other program areas, which the administration considers of higher priority.

375. Question: Last year the Subcommittee provided funds for the continuation of the "Rural Development Through Forestry in the Northeast and Midwest" initiative. The initiative has produced significant accomplishments to help strengthen and revitalize rural economies. How much funding does the request include for the initiative?

Answer: The initiative has produced significant accomplishments to help strengthen rural economies. The experiences in the Northeast and Midwest will be used to further our ability to strengthen the economies of rural communities nationwide.

Based on the FY 1997 proposed budget, the FY 1997 planned allocation for the Northeastern Area includes about $3.2 million in Economic Action Program funding, of which $1.0 million is for the rural development program.

Based on the level of funding proposed for FY 1997, the planned allocation of limited Economic Action Program funds ($15.0 million) to field units is based on the purpose of the program; to provide technical and financial assistance to eligible rural communities nationwide. In addition to the Rural Development component, three other components are also funded through the Economic Action Program: Economic Recovery, Forest Products Conservation and Recovery, and the Wood-in-Transportation (Timber Bridge Initiative) component. Each component plays a specific and significant role in increasing the economic capability of the Nation's rural communities.

376. Question: The request for State and Private Forestry is $164,000,000. Does this include funds to help Pennsylvania manage their state and private lands?

Answer: Yes. The proposed budget provides about $3.3 million to help implement cooperative forestry programs in PA.

377. Question: Please describe the Northeast Pennsylvania wildlife/urban interface pilot project?

Answer: Northeastern Pennsylvania has a wide variety of natural resources. Forests provide renewable resources that, if properly protected and managed, support sustainable economic development. Forest-based industries such as travel and tourism, recreation, and value-added wood products can form the basis of sustainable economic development in northeastern Pennsylvania.

The purpose of the pilot project in northeastern Pennsylvania would be to stimulate sustainable forest-based economic development and protect the basis of that development through the implementation of key recommendations of the Rural Fire Protection in America Report.

Funds, if available, would be derived from Urban and Community Forestry; Stewardship and Stewardship Incentive programs; Forest Health Management Cooperative Lands; Rural Fire Protection and Control; Economic Action Program; and Rural Community Fire Protection (through the Agriculture appropriation).

FY 1997 funds would support the project in three areas: resource and property protection at the wildland/urban interface; landowner outreach and assistance; and economic strategies leading to economic expansion.

Resource and property protection efforts would be tiered to the Rural Fire in America Report. Funds would be used to formalize cooperative relationships between various levels of government responsible for fire protection at the wildland/urban interface; identify and monitor select forested areas threatened with fire and that potentially threaten lives and improved property; assist with equipping rural volunteer fire departments; train State and local personnel in the Incident Command System; and assist with the development of coordinated responses to emergencies.

Landowner outreach and assistance efforts would emphasize technical and financial assistance to nonindustrial private forest landowners so that they can properly manage their forest and related natural resources in a manner that meets their own objectives while providing a basis for economic development and lowering the threat of fire.

Economic strategies would use funds to identify local business capacity to utilize local forest resources in both commodity and non-commodity applications; identify local business needs for sustainable forest-based economic development; and define specific strategies and financial incentives to business initiation or start-up.

378. Question: Does the request for S&PF include funds to help Ohio manage their state and private lands?

Answer: Yes. The proposed budget provides about $1.7 million to help implement the cooperative programs in Ohio.

379. Question: Please describe the Eastern Ohio Conservation Center project?

Answer: The Eastern Ohio Conservation Center project would focus upon: forest health management issues, particularly the leading edge of the gypsy moth; fire training for State personnel and rural volunteer fire departments; private landowner education and program outreach; urban/wildland interface issues; urban and community forest resources and needs; Project Learning Tree; and state forest management.

Available federal funds in FY 1997 would be used as seed money to establish professional staff; equipment and supplies; develop a master plan; and initiate programs and technology transfer.

The center would establish a network of citizens and practitioners concerned with sound forest management, and will identify information needs, facilitate and support forest health activities, and disseminate information and technology transfer on forest management.

The center is scheduled to be located on the Mohican State Forest, an area that receives high recreation and visitor use.

The center has the support of the Ohio Department of Natural Resources, and is slated to receive State matching funds.

380. Question: Does the request for S&PF include funds to help Illinois manage their state and private lands?

Answer: Yes. The proposed budget provides about $2.8 million to help implement cooperative forestry programs in Illinois.

381. Question: Does the request include funds for the continuation of the "Chicago Wilderness" initiative?

Answer: The FY 1997 proposed budget for the Urban and Community Forestry Program supports projects that reflects Forest Service commitment to restoring and protecting ecosystems in the Chicago metropolitan area. The planned allocation of State and Private Forestry funds to the Northeastern Area includes funds to continue some support for the "Chicago Wilderness" initiative.

382. Question: How does the Service plan to provide assistance for the Cook County Forest Preserve and Chicago GreenStreets in FY 97?

Answer: The Cook County Forest Preserve project has made significant progress to preserve, conserve, and manage unique biodiversity found within the District's forests, woodlands, savannas, and prairies. For example, in FY 1995, five sites were developed demonstrating ecological approaches to managing natural resources in an urban area that involved more than 2,000 volunteers. Likewise, the Chicago Greenstreets Program has made significant progress in addressing urban forestry needs in the Chicago region by focusing on tree planting and care, recycling, and open space revitalization. Public-private partnerships are a cornerstone of both programs. Assistance for these two programs will continue to be provided to the extent possible through the Forest Service Northeastern Area.

383. Question: What is the request for these two projects?

Answer: Although the exact level of funding that might be available for these projects in FY 1997 has not been determined, we would anticipate that available funding will likely be significantly less than in FY 1996.

RECYCLING

I am concerned by the apparent contradiction between the Administration's stated goal of trying to increase the use of recycled paper and the Service's efforts to undercut this by selling green pulpwood at below market cost.

384. Question: Wouldn't the Service increase the use of recycled paper and enhance revenue to the Treasury if prices for green pulpwood were increased?

Answer: We do not believe that increasing the price of pulpwood would have any effect on paper prices significant enough to increase the use of recycled paper. The following factors would minimize any paper price increase: 1) the price of pulpwood is a very small component of the price of paper; 2) the Forest Service supplies only a small percentage of the total pulpwood produced; 3) in 1995, 45 percent of all paper consumed was made from recycled paper; and 4) it is unlikely that the Forest Service could significantly increase the price of pulpwood.

The price of pulpwood is based on transaction evidence appraisals that estimate the market value of pulpwood. The market value is based on the supply of pulpwood and the willingness of public and private pulpwood sellers to harvest pulpwood at certain prices. If the Forest Service increased the price of pulpwood above the market level, pulpwood buyers would turn to private landholders for this material. If this were to occur, the Forest Service would be unable to meet the resource objectives of the offered sales.

THUNDER SALVAGE SALE

I was disappointed when the Service recently nullified the high bid put in by the Northwest Ecosystem Alliance for the Thunder salvage timber sale on the Okanogan National Forest.

385. Question: What is being done by the Service to ensure that in the future the high bidder in the timber sales will be awarded the sale, regardless of whether or not the bidder plans to cut the timber?

Answer: Proposed vegetative management projects are analyzed as part of the planning process consistent with the National Forest Management Act of 1976 (NFMA), the National Environmental Policy Act of 1969 (NEPA), the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), and others. The objectives for these projects may include improvements to: habitat for threatened and endangered species; wildlife habitat; range habitat; aesthetics; timber resources; forest health, to reduce fuel loading, and many other objectives. Projects are identified in order to implement Forest Land and Resource Management Plans. Timber sales are only one method that may be chosen to implement these projects.

The timber sale contract is a legally binding agreement between the Forest Service and a purchaser. In this agreement the Forest Service agrees to sell timber to the purchaser and permit the purchaser to cut and remove the timber designated in the contract, and the purchaser agrees to purchase, cut, and remove the included timber. If purchasers buy timber with no intent to cut and remove this timber, land managers may not be able to achieve the vegetative management objectives in their Land Management Plans. Purchasers that sign contracts with the Forest Service and then do not cut the timber will eventually default the timber sale contract. The Forest Service is required to agressively pursue contract default damages. The Forest Service, by regulation, is also required to award contracts to purchasers that have adequate financial resources and equipment to complete the timber sale contract.

The Forest Service is not pursuing regulations that would allow bidders to purchase timber and then not fulfill the terms of the timber sale contract. It is essential that the Forest Service award contracts to responsible bidders who intend to purchase, cut, and remove the included timber in the contracts as well as to protect forest resources during the harvesting operations to insure that the objectives in Land Management Plans and the environmental decisions that implement those Plans are met. It is our intent to meet these objectives while ensuring the highest bid price possible.

URBAN FORESTRY

386. Question: I noticed your request for FY 97 includes a $500,000 increase for Urban Forestry, for a total of $26,000,000. What have you been able to accomplish in FY 96 in the Urban Forestry Program.

Answer: Specific accomplishments for FY 1996 will not be available until October 1996. However, specific accomplishments from FY 1995 are available and comparisons with previous years indicate that the trends in this program have been sustained. These trends include increases in the quality and quantity of technical and financial assistance that is available for communities to establish, develop and protect the country's urban and community areas, where 78% of the U.S. population resides. In FY 1995 more than 7,200 communities were assisted through this program, engaging more than 7,000 community-based volunteer organizations to make positive changes in their environment and redeem individual responsibility to the development and improvement of the country. $7.5 million in matching federal grants was made available to 1,600 community based organizations, and leveraged $10.9 million in private contributions toward planting more than 4.4 million trees and protecting an additional 112,000 acres of existing urban forest.

387. Question: Why do you need an increase in FY 97?

Answer: Urban forests represent a $30 billion appreciating resource that, with proper care and management has the potential for $80 billion value to the nation (data source: "Trees in the Community: Managing the Urban Forest," published in the Management Information Services Report of the International City/Council Management Association; Vol. 24/No. 5, May 1992). Urban and Community Forestry programs engage the public in taking responsibility for managing these resources to the greatest environmental, economic and social value for their community. At the current funding level, 16% of eligible communities can receive the technical and financial assistance they need to begin development of self-sustaining programs. Such programs contribute positively to property values, business investments, air, soil and water quality; they stimulate public action and commitment and help build the sense of community in the nation's towns and urban centers. The additional fund request for FY 1997, approximately 2% of the overall program dollars, would help the program to maintain its upward trend and allow program objectives to adjust to societal needs.

SECTION 318 SALES

388. Question: Why hasn't the Administration been more aggressive in seeking a repeal of the salvage timber and the Section 318 riders?

Answer: The Administration has been aggressive in attempts to repeal Public Law 104-19. The President himself has, on several occasions, called for repeal of the rider and publicly supported the "Murray Bill" (S. 1590). S. 1590 would have repealed P.L. 104-19. It included provisions to buy out or replace section 318 sales and revise the expedited salvage process. The Administration worked with Senator Murray to assure that the proposed bill addressed the legal problems associated with P.L. 104-19. On March 13, 1996, the President sent a letter to Senator Murray expressing strong support for her bill and encouraging her colleagues to support it as well.

URBAN RESOURCES PARTNERSHIP

389. Question: I want to again commend the Service for its success with the Urban Resources Partnership program. This program is truly one of the great success stories within the Service. By providing urban residents with the opportunity to solve local environmental problems and improve the quality of urban life, the Service is helping millions of Americans. Please tell the Committee if you think this program has been successful and why. In addition, please tell us what steps you are taking to continue and expand this program.

Answer: The Urban Resources Partnership (URP) was developed as a specific project focus within the overall Urban and Community Forestry effort. This demonstration project has focused on providing local groups with "one-stop-shopping" for federal resources available for urban resource management. In the past 2 years, the $6 million provided by the Forest Service and the Natural Resource Conservation

Service for URP, has leveraged approximately $14 million in non-federal funding and community labor. Twenty-six thousand hours of technical assistance have been provided by federal and local agencies and organizations for 310 projects in the 8 cities. URP accomplishments have provided a template from which to encourage collaborative efforts to resolve local problems. As such, URP is reflected in the entire Urban and Community Forestry program, and as the overall U&CF effort is sustained and expanded, so will the fundamental cooperative concepts of the Urban Resources Partnership. The proposed FY 1997 budget maintains the existing demonstration sites.

LAW ENFORCEMENT ACTIVITIES

390. Question: How much was spent by the Service and other federal government agencies on law enforcement activities associated with the "Cripps Bend" timber sale on the Shawnee NF?

Answer: The amount spent on Forest Service law enforcement in connection with the Cripps Bend timber sale was approximately $36,544. This covers base salary, overtime, and travel for approximately 13 officers that covered the law enforcement activities during this sale.

Also $2,133 was spent through cooperative law enforcement with state and local law enforcement agencies. Estimates of what was spent by other federal government agencies on law enforcement activities on the Cripps Bend timber sale are not available.

391. Question: How much has been spent by the Service and other federal government agencies on court costs associated with the Cripps Bend sale?

Answer: Approximately $20,000 has been spent on court costs for the Cripps Bend sale.

392. Question: Why did the Service proceed with the Cripps Bend sale while court cases on the sale were still pending?

Answer: The Service continued with the Cripps Bend sale because the Judge ruled that we could proceed.

393. Question: How much has been spent by the Service and other federal government agencies on the Opportunity Area 6 environmental assessment at the Shawnee NF?

Answer: Approximately $300,000 has been spent on the Opportunity Area 6 environmental assessment at the Shawnee NF.

FOREST CONDITIONS

As I recall, in 1991 or 1992, the Forest Service held a conference on forest conditions, especially as they are affected by insects and disease, and the role of Research generally. My recollection is that the Research level was the same in constant dollars in 1990 as in 1980. It is also my recollection that work on Insect and Diseases, and some other work had fallen. If I recall the decline was in dollars, as a percentage of the Forest Service budget, and the number of scientists funded.

394. Question: Is my recollection correct?

Answer: Your recollection is correct. The Forest Service Research budget decreased slightly from 1980 to 1996 from $95.9 Million to $93.5 Million in terms of FY 1980 constant dollars. Funding for insect and disease research has decreased by nearly 50% and gone from about 19% of the total Forest Service Research budget to about 11% over the same period. During the same period, the number of scientists working on insect and disease problems has decreased from about 165 to about 89.

RESEARCH

395. Question: Please update Research by activity in constant dollars and scientist years, for 1980-1997.

Answer: From 1980 to 1994, Research budget was spread over five budget line items (BLIs), and in 1995 Research went to three BLIs. However, because we initiated the Research Budget and Attainment Information System (RBAIS), constant dollars were spread across the four major RBAIS emphasis areas beginning in 1995.

1980 Constant Dollars
...dollars in thousands...

	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984
Forest Environment Research	17,498	17,376	17,582	16,009	15,916
Forest Management Research	17,733	18,862	17,562	16,756	17,267
Forest Products & Harvesting	15,258	16,749	17,318	14,568	14,031
Forest Protection Research	27,127	27,223	25,403	24,470	23,331
Resource Analysis Research	18,301	18,591	17,234	15,842	14,790
Scientist Years	964.1	958.3	908.9	837.7	812.6

	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
Forest Environment Research	15,273	17,439	19,961	19,988	20,329
Forest Management Research	16,643	15,675	16,939	18,219	17,936
Forest Products & Harvesting	13,884	12,801	13,335	13,523	13,422
Forest Protection Research	21,862	20,341	22,138	21,482	21,578
Resource Analysis Research	17,821	16,574	17,473	17,425	16,710
Scientist Years	799.4	733.6	713.4	723.9	714.0

	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994
Forest Environment Research	21,102	24,509	24,327	23,759	23,298
Forest Management Research	18,548	21,967	22,902	22,529	22,692
Forest Products & Harvesting	13,298	13,661	14,974	14,529	14,262
Forest Protection Research	21,292	22,939	23,810	23,234	22,804
Resource Analysis Research	16,433	17,669	19,405	19,914	19,942
Scientist Years	715.8	719.8	713.8	780.7	777.7

	FY 1995	FY 1996	FY 1997
Vegetation Management and Protection	47,749	42,551	42,249
Wildlife, Fish, Water, and Air Sciences	24,019	20,946	20,373
Resource Valuation and Use	20,983	18,798	18,162
Inventory and Monitoring	11,743	11,156	10,906
Scientist Years	730.9	N/A	N/A

N/A = We are unable to estimate actual scientist years accomplishments, and attainments until the fiscal year is completed.

396. Question: Research is highly personnel oriented. I'm concerned that there is a tendency to declare a crisis and crash action, while short-changing the research that should be the foundation for the type and level of action. Given the long-term trends and the 1997 budget, where are we falling behind and what dangers does this pose in helping resource managers make wise choices for actions that may be urged?

Answer: Since its beginning, the focus of the USDA Forest Service Research program has been to address the highest priority information and technology needs for the Nation's forest and rangeland resources. Short-term focus has generally been driven by the immediate needs of the resource professional while the longer-term strategic effort has been driven by broader science needs. Balancing the short- and long-term needs, that is, addressing today's needs while providing the foundation science to solve tomorrow's problems, has always been a challenge. However, while scientific and infrastructure capacity have been rapidly declining, both short- and long-term demands for information are increasing and becoming more complex. It is no longer possible to provide a reasonable balance. Natural resource professionals are increasingly frustrated that we cannot meet their urgent needs in a timely manner. This situation has resulted in close collaboration and cooperation between scientists and managers to assure that we continue to target the most critical needs. However, this is at the price of reduced ability to provide timely solutions to future problems.

Since 1985, the loss of Forest Service scientific capacity has been dramatic:

	NUMBER OF SCIENTISTS		
	1985	1997	% Loss
Entomologists	70	36	-48

Pathologists	50	29	-42
Range Scientists	22	6	-73
Hydrologists	19	15	-21
Soil Scientists	27	15	-44
Geneticists	31	18	-42
Foresters	350	157	-55
Forest Products Tech	63	14	-78
All Other	353	252	-29
Totals	985	542	-45

In constant dollars, the Forest Service Research budget is slightly below where it was in FY 1980 (see "History of Research Appropriations," Attached). Although this suggests that we should be able to fund about the same number of scientists during this period, we have continued to experience reductions due to attrition; more recently, the agency has been granted authority to conduct a Reduction-In-Force. Standard economic deflators based on the national Cost of Living Index do not seem to reflect the costs of conducting scientific research. Other science institutions report similar increases in cost of research.

We believe that our comparative advantage in the science community is the ability to initiate and sustain long-term, integrated, inter-disciplinary attack on complex natural resource problems of large scale and broad scope. This requires that we maintain a broad-based pool of scientific disciplines strategically located to address regional, national, and international issues. At current staffing and funding, we are unable to adequately address generally recognized critical problems such as: forest health and productivity; forest inventory cycle reduction; inventory and monitoring methodogy; ecosystem sustainability; and technology to extend wood supplies, such as recycling and use of smaller diameter understory trees.

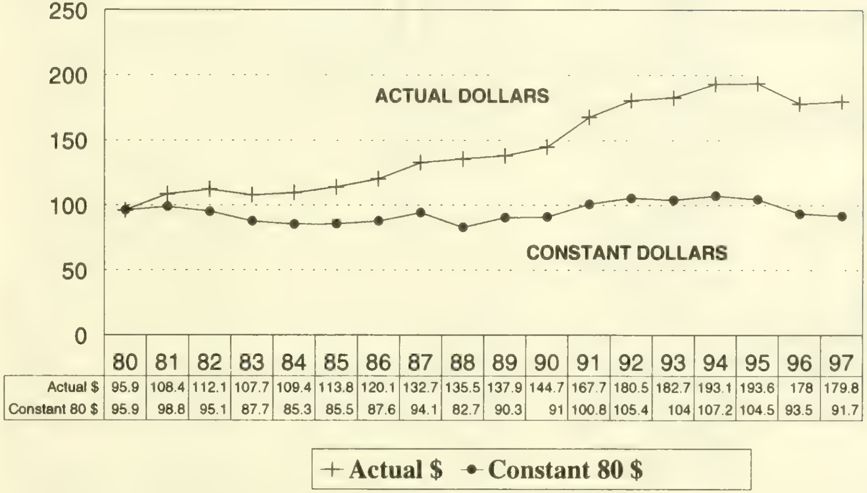
397. Question: Please describe in detail the research plans you have to determine the impacts of logging and logging roads on [a] watersheds, [b] soil movement, [c] site deterioration, [d] streams and rivers, [e] fisheries and any other resource situations. Show the studies underway in 1996, the actions planned for 1997, and the target completion dates. Show the anticipated scientist years and costs by project. Show any cooperative aspects of the studies.

Answer: Forest Service Research has 169 current and planned studies relating to effects of logging and logging roads on forest resources. These studies involve about $8,600,000 and 95 scientist years in FY 1996. An attachment is provided which contains a detailed listing of the information requested.

398. Question: The 3/8/96 Oregonian reported on a study by Forest Service hydrologist Gordon Grant that will be in the April issue of Water Resources Research. Provide a summary of its salient points. What further work is Mr. Grant and others associated with that work doing as a result of the Northwest floods, other floods, road washouts and stream damage to watersheds.

HISTORY OF RESEARCH APPROPRIATIONS
FY 1980 - FY 1997 PB
(Actual $ vs. Constant $)

$ in millions



	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97
Actual $	95.9	108.4	112.1	107.7	109.4	113.8	120.1	132.7	135.5	137.9	144.7	167.7	180.5	182.7	193.1	193.6	178	179.8
Constant 80 $	95.9	98.8	95.1	87.7	85.3	85.5	87.6	94.1	82.7	90.3	91	100.8	105.4	104	107.2	104.5	93.5	91.7

ANSWER FOR QUESTION #397 RELATED TO PAST AND ONGOING FOREST SERVICE RESEBACH

Forest Service Research has 169 current and planned studies relating to effects of logging and logging roads on forest resources. These studies involve about $8,600,000 and 95 scientist years in FY 1996. The following is a detailed listing of the information requested.

[a] Watershed
1996 Studies

1. Study description: Salvage logging effects on reburn intensity.
Planned completion date: October 1997
Planned Scientist years expended for FY 1996: 1
Planned costs for FY 1996: $30,000
Cooperative aspects of study: Coop. U of Washington & Washington State U.

2. Study description: Silviculture approach to creating sustainable dry forest ecosystems.
Planned completion date: October 1999
Planned Scientist years expended for FY 1996: .5
Planned costs for FY 1996: $15,000
Cooperative aspects of study: Coop. National Forest System

3. Study description: Evaluating effects of past logging on watershed vegetation patterns and composition.
Planned completion date: October 1, 1996 (part of Upper Columbia River Basin effort)
Planned Scientist years expended for FY 1996: 1
Planned costs for FY 1996: UCRB funding
Cooperative aspects of study: Coop. UCRB Project

4. Study description: Creating future forests with reduced catastrophic fire/insect hazard.
Planned completion date: October 1996
Planned Scientist years expended for FY 1996: 2
Planned costs for FY 1996: $63,000
Cooperative aspects of study: Coop. National Forest System, U. of Washington and Washington State U.

5. Study description: Watershed response to 1996 flood--How have changes in land use (cuts, roads) changed the response of watersheds to floods? Interactions of slides from hillslopes, debris flows down steep channels, disturbance of riparian and channel conditions along main channels.
Planned completion date: September 1997
Planned Scientist years expended for FY 1996: 2
Planned costs for FY 1996: $150,000
Cooperative aspects of study: Cooperation: Oregon State University, Willamette NF, National Science Foundation.

6. Study description: Retrospective analyses to determine effects of forest management, including clearcutting and roads, on peak streamflows.
Planned completion date: December 1996.
Planned Scientist years expended for FY 1996: 0.5
Planned costs for FY 1996: $20,000
Cooperative aspects of study: Work is collaborative among USFS Pacific Northwest Research Station and Oregon State University

researchers. Statistical analyses of logging treatment effects in 10 pairs of small watersheds is using long-term records that have been maintained for up to 40 years by Forest Service researchers. Study is also integrated with other long-term studies of watershed response to vegetation manipulation at H.J. Andrews Experimental Forest, a National Science Foundation funded Long-Term Ecological Research site.

7. Study description: Development and application of simulation tools to evaluate effects of timber harvest and road construction on hydrologic and geomorphic processes. New technologies in computer-based modeling, geographic information systems, and remote sensing are providing opportunities to couple spatially distributed hydrologic models that predict streamflow with models predicting mass movements and sediment production. These new models allow researchers and managers to explore consequences of past and future management scenarios on key watershed behavior and processes.
   Planned completion date: June 1997
   Planned Scientist years expended for FY 1996: 1.2
   Planned costs for FY 1996: $30,000
   Cooperative aspects of study: Research on this project is proceeding under the interagency agreement between the U.S. Forest Service and the U.S. Geological Survey for watershed research.

8. Study description: Field and modeling studies to evaluate effects of forest roads on streamflows. Intensive monitoring of runoff from forest roads at the H.J. Andrews Experimental Forest is providing new information on how roads contribute to peak streamflows. Focus is on determining causal mechanisms linking roads to runoff generation processes.
   Planned completion date: June 1997
   Planned Scientist years expended for FY 1996: 0.7
   Planned costs for FY 1996: $25,000
   Cooperative aspects of study: Study is primarily funded by Bureau of Land Management, with data and logistical support provided by Pacific Northwest Research Station. Field research scientist is from Dept. of Forest Sciences at Oregon State University.

9. Study Description: The Caspar Creek Experimental Watersheds. The Caspar Creek project is the first comprehensive field experiment in the U.S. or abroad to evaluate cumulative watershed effects of logging and road building. Current studies include measurements of streamflow and suspended sediment discharge, bed load movement, stream channel stability, large woody debris, anadromous fish habitat, solar radiation, precipitation, air and water temperature, soil moisture, groundwater, and sub-surface pipe flow. To date about 40 scientific papers have been published from this study.
   Planned completion date: 2000, with monitoring to be continued until 2100.
   Planned Scientist years expended for FY 1996-7: 1.2 per year.
   Planned costs for FY 1996-7: $200,000 plus $90,000 contribution by California per year.
   Cooperative aspects of study: California Department of Forestry and Fire Protection annually contributes $90,000 plus land, facilities, maintenance, and staff. California Department of Fish and Game and Department of Mines and Geology provide staff support.

10. Study description: Ongoing longterm watershed studies at the the Fraser Experimental forest are monitoring the effect of road construction and timber harvest on water yield and sediment production. Impacts have been imposed since the early 1950's in some cases and initial response, recovery, and natural variation has and is being monitored. Nine experimental watersheds are involved. Similar monitoring of timber harvest and road construction impacts are being monitored on the Medicine Bow National Forest in cooperation with national forest system hydrologists as well in what is an operational level application of research technology.
    Planned Completion Date: Ongoing
    Planned Scientist Years Expended for FY 1996: 1/3 SY per year
    Planned Costs for FY 1996: $140,000; Continuing in 1997.
    Cooperative Aspects of Study: Long history of faculty/student interaction with Colorado State University and University of Wyoming as well as other academic, public, and private institutions. These studies represent the bench mark case studies on the long term effect of forest manipulation on watershed response in the subalpine zone

11. Study description: Impact of clearcutting on water yield and chemistry
    Planned Completion date: Long-term approximately 2005
    Planned Sci. Yr Expended for FY 96: 0.1
    Planned cost for FY 96: $10,000, continuing in 1997
    Cooperative Aspects: MOU with Itasca, County, MN.

12. Study description: Impact of whole tree harvesting & hardwood to conifer conversion on water yield and water chemistry.
    Planned Completion date: Long-term approximately 2006
    Planned Sci. Yr Expended for FY 96: 0.1
    Planned cost for FY 96: $10,000, continuing in 1997
    Cooperative Aspects: MOU with Chippewa National Forest

13. Study description: Impact of peatland black spruce harvesting on water tables.
    Planned Completion date: Long-term approximately 2006
    Planned Sci. Yr Expended for FY 96: 0.1, continuing in 1997
    Cooperative Aspects: MOU with Chippewa National Forest

14. Study description: Impact of logging on lake & wetland potholes, physical and chemical aspects.
    Planned completion date: December, 1997
    Planned Sci. Yr. Expended for FY 96: 1, continuing in 1997
    Cooperative Aspects: Clearwater County, MN, & Itasca State Park, MN

15. Study description: A study is being established in connection with the National Long-Term Soil Productivity Study to (1) quantify relationships and interactions among geomorphic surfaces, soil water, soil properties, and tree growth and (2) determine the effects of timber harvest, soil compaction, and organic matter removal upon soil water, nutrient distribution, and site productivity as expressed by biomass production and species distribution.
    Planned completion date: September 1998.
    Planned scientist years expended for FY 1996: 0.20
    Planned cost for FY 1996: $50,000.
    Cooperative aspects of study: Coop. Univ. of MO., MO Dept. of

Conserv.

16. Study description: Movement of nutrients through sandy soil profile under controlled, nutrient enhanced, and nutrient + water enhanced conditions.
Planned completion date: December, 2000
Planned Scientist years expended for FY 1996: .1
Planned costs for FY 1996: $20,000
Cooperative aspects of study: Cooperators: H. L. Allen and T. Albaugh, North Carolina State University.

17. Study description: Evaluation of forest operations impacts with best management practices. Using a paired-watershed approach, this study will measure water quality effects of conventional forest operations including harvesting, road building, and site preparation.
Planned completion date: FY 98
Planned scientist years FY 96: 0.1
Planned costs FY 96: $50K
Cooperative aspects of study: Co-primary investigators with Auburn University; supported with in-kind by Georgia-Pacific Corporation.

18. Study description: Development, application and evaluation of a forest management erosion and stream sediment model.
Planned Completion Date: September 1997
Planned Scientists years expended for 1996: 1.5
Planned costs for FY 1996: 150,000
Cooperative aspects of study: University of Georgia, Nantahala N.F., Environmental Protection Agency

19. Study description: Cumulative effects of land use practices (forestry, agriculture, rural community) on water quality.
Planned Completion Date: September 1996
Planned Scientist years expended for 1996: 0.6
Planned costs for FY 1996: 50,000
Cooperative aspects of study: University of Minnesota

20. Study description: Document impacts of a typical national forest timber sale on soil and water resources. Develop and refine monitoring techniques that can be used to evaluate impacts of similar management activities. Macroinvertebrates, streamwater chemistry, and sediment production are being measured on a logged and nearby reference watershed.
Planned Completion Date: Fall 1998
Planned Scientist years expended for 1996 0.3 SY
Planned costs for 1996: 10,000, continuing in 1997
Cooperative aspects of study: Monongahela National Forest

21. Study description: Effects of stand restoration burning, regeneration harvesting, and road reconstruction on water quality, stream habitat, benthic organisms, and fish populations.
Planned Completion Date: 2000
Planned Scientist years expended for 1996: 6.0
Planned costs for FY 1996: 300,000
Cooperative aspects of study: Nantahala N.F., University of Georgia, Virginia Tech and State University, EPA, Clemson University

[a] Watershed

1997 Planned Studies

1. Study description: Watershed response to 1996 flood--How have changes in land use (cuts, roads) changed the response of watersheds to floods? Interactions of slides from hillslopes, debris flows down steep channels, disturbance of riparian and channel conditions along main channels.
Planned completion date: September 1997
Planned Scientist years expended for FY 1997: 2
Planned costs for FY 1997: $150,000
Cooperative aspects of study: Oregon State University, Willamette National Forest, National Science Foundation.

2. Study description: Retrospective analyses to determine effects of forest management, including clearcutting and roads, on low streamflows. Analysis of long-term data sets from small and large paired watersheds in western Cascades of Oregon to evaluate trends in peak flows in relation to treatments.
Planned completion date: December 1997
Planned Scientist years expended for FY 1997: 0.5
Planned costs for FY 1997: $20,000
Cooperative aspects of study: Work is collaborative among USFS Pacific Northwest Research Station and Oregon State University researchers.

3. Study description: Further development and application of simulation tools to evaluate effects of timber harvest and road construction on streamflow, mass movements, and channel changes. Current models (described under 1996 #2 above) will be extended to include effects of debris flows and movement of woody debris in affecting channel structure and suitability for aquatic habitat.
Planned completion date: June 1988
Planned Scientist years expended for FY 1997: 1.5
Planned costs for FY 1997: $50,000
Cooperative aspects of study: Same as 1996 above. Work in this area is also being conducted under the CLAMS (Coastal Landscape Analysis and Modeling Study), an analysis of alternative management strategies for the Oregon Coast Range involving researchers from Pacific Northwest Research Station and Oregon State University.

4. Study description: Analysis of recent floods on watershed processes. Widespread flooding in the Pacific Northwest in February 1996 offers unprecedented opportunity to examine interaction among historical and current land management practices and flood processes, including peak streamflows, mass movements, and channel disturbances. Work will focus on identifying cause-and-effect linkages between hillslope and channel processes as influenced by land-use condition (i.e., clearcuts, roads).
Planned completion date: December 1997
Planned Scientist years expended for FY 1997: 0.5
Planned costs for FY 1997: $40,000
Cooperative aspects of study: Study will be conducted as part of a larger, multi-disciplinary post-flood analysis effort now underway on federal and state lands throughout the Northwest. Contributors include scientists with the H.J. Andrews LTER site, National Forest and BLM resource specialists, and specialists with other state agencies.

5. Study description: Caspar Creek Experimental Watershed. Same as

9 above in current watershed studies. This study in ongoing.

6. Study description: New, large basin watershed analysis on the
   Chippewa
   National Forest
   Multidisciplinary in nature.
   Planned Completion Date: FY99
   Planned Sci Yr. 4.0
   Planned Costs for FY97, $90,000

7. Possible new road impact study on Region 9 training area in FY1996 on Fletcher Challenge land

8. Study description: Impact of wetlands and logging on streamflow and stream function.
   Planned Completion Date: December, 1999.
   Planned Sci. Yr. FY 97 0.25
   Planned costs for FY 97 $10,000
   Cooperative Aspects: Natural Resources Research Institute, Univ. of MN. & Superior NF, Ottawa NF, and Chequamegon NF. Part of National Science Foundation team.

9. Study description: Impact of thinning in nine small watersheds in Arkansas. Commercial or pre-commercial thinning of loblolly or shortleaf pine stands regenerated naturally and artificially in 1980.
   Planned Completion Date: 2000
   SY Expended in 1997: 0.1
   Planned Costs in FY 97: $7,000
   Cooperative Aspects of study: Done cooperatively with Oklahoma State University and University of Arkansas at Monticello. Six watersheds are on the Ouachita National Forest, 3 are on Weyerhauser Company land.

10. Study description: Movement of nutrients through sandy soil profile under controlled, nutrient enhanced, and nutrient + water enhanced conditions.
    Planned completion date:
    Planned Scientist years expended for FY 1997: .15
    Planned costs for FY 1997: $30,000
    Cooperative aspects of study: Cooperators: North Carolina State University; Savannah River Forest Station

11. Study description: This work will assess the impacts of harvesting, site preparation, and intensive silviculture on water quality of a first-order watershed in the lower coastal plain. Interactions of management practices, buffer zones and water quality will be assessed.
    Primary Investigator: C. Trettin
    Planned completion date: 2005
    Planned Scientist years expended for FY 1997: 1.5
    Planned costs for FY 1997: $150K
    Cooperative aspects of study: This project is a cooperative between the National Council of the Paper Industry on Air and Stream Improvement, Westvaco, International Paper, College of Charleston, Auburn Univ., North Carolina State Univ.

12. Description: Evaluation of forest operations impacts with best management practices. Using a paired-watershed approach, this study will measure water quality effects of conventional forest

operations including harvesting, road building, and site preparation.
Planned completion date: FY 98
Planned scientist years FY 97: 0.2
Planned costs FY 97: $50K
Cooperative aspects of study: Co-primary investigators with Auburn University; supported with in-kind by Georgia-Pacific Corporation.

13. Study description: Development, application and evaluation of a forest management erosion and stream sediment model.
Planned Completion Date: September 1997
Planned Scientists years expended for 1997: 1.2
Planned costs for FY 1997: 120,000
Cooperative aspects of study: University of Georgia, Nantahala N.F., Environmental Protection Agency

14. Study description: Effects of stand restoration burning, regeneration harvesting, and road reconstruction on water quality, stream habitat, benthic organisms, and fish populations.
Planned Completion Date: 2000
Planned Scientist years expended for 1997: 7.0
Planned costs for FY 1997: 350,000
Cooperative aspects of study: Nantahala N.F., University of Georgia, Virginia Tech and State University, EPA, Clemson University

15. Study description: A synthesis of long-term hydrologic and water quality responses to harvesting and road construction.
Planned Completion Date: September 1997
Planned Scientist years expended for 1997: 0.4
Planned costs for FY 1997: 40,000
Cooperative aspects of study: In cooperation with other FS research stations, universities, and National Science Foundation.

[b] Soil movement
1996 Studies

1. Study description: Inventory of landslides in Blue River area where landslides have been documented since 1950. Examine effects of road construction type/age, age of plantation (clearcut area). (Additional areas will be sampled if funding permits.)
Planned completion date: September 1996
Planned Scientist years expended for FY 1996: 1.0
Planned costs for FY 1996: $50,000
Cooperative aspects of study: Coop. Willamette National Forest

2. Study description: The National Long-term Soil Productivity Study (LTSP) in California is a joint National Forest System/Forest Service Research study to "evaluate timber management impacts on long-term soil productivity. Initiated in 1989, this national study of long-term soil productivity includes a national network of over 40 research installations with associated soil and vegetation data, established across a broad spectrum of forest ecosystems.

The objectives of the study are to: (1) quantify the effects of soil disturbance from management activities on long-term productivity; (2) validate soil monitoring standards developed in compliance with the National Forest Management Act of 1976; (3)

better understand the fundamental relationships between soil properties, long-term productivity and forest management practices; and (4) evaluate the potential for mitigating the adverse effects of disturbance.

The objective of the soil movement portion of this study is to quantify the surface losses of soil and nutrients in relation to the treatments. A model of erosion rates as a function of soil compaction and organic matter changes will be developed.

Planned completion date: 2005. Soil erosion models relating to compaction and organic matter removal will be completed within 10 years (at the point when surface erosion is reduced to background levels).
Planned Scientist years expended for FY 1996-7: 0.1 per year
Planned costs for FY 1996-7: $20,000 per year
Cooperative aspects of study: This study is being conducted in cooperation with various National Forests nation wide.

3. Study description: Use of central tire inflation to reduce logging truck damage to logging roads. Lower truck tire pressure can reduce road rutting and sediment from logging roads.
Planned completion date: 1998.
Planned scientist years expended for FY 1996: 1.0
Planned cost for FY 1996: $200,000.
Cooperative aspects of study: Pacific Northwest Region, Payette National Forest, University of Idaho, San Dimas Equipment Development Center.

4. Study description: Prediction of soil erosion from roads and harvest areas as part of the National Water Erosion Prediction Project. A process model is being developed for erosion prediction.
Planned completion date: 1998.
Planned scientist years expended for FY 1996: 2.0
Planned cost for FY 1996: $400,000.
Cooperative aspects of study: Utah State University, National Forest System, Agricultural Research Service, Bureau of Land Management

5. Study description: The study is designed to measure the effect of harvesting disturbances on forest stand development, soil recovery, forest floor development, root distribution, and fine root nutrient dynamics using the chronosequence approach.
Planned completion date: December 1998.
Planned scientist years expended for FY 1996: 0.20
Planned cost for FY 1996: $50,000.
Cooperative aspects of study: Coop. Purdue U.

6. Study description: Effects of alternative prescriptions on upland hardwood stands. Compares clearcutting, strip cutting, and deferment cutting on the basis of productivity, costs, and site impacts. Includes measurement of soil movement within areas as well as off-site transport.
Planned completion date: FY 1997
Planned scientist years FY 1996: 0.2
Planned costs for FY 1996: $55K
Cooperative aspects of study: co-PI's with Auburn University, supported with in-kind by Champion International Corporation.

7. Study description: Stabilization of road cross-sections. Compares sediment movement from road slopes as a function of stabilization treatment, including seeding, use of native species, and erosion matting.
   Planned scientist years FY 1996: 0.2
   Planned costs for FY 1996: $15K
   Cooperative aspects of study: Coop with Auburn University and the USDA Forest Service, study is installed on the Talladega National Forest

Soil Movement
1997 Planned Studies

1. Study description: Using herbaceous species to reduce soil compaction by logging.
   Primary Investigator: A. Camp
   Planned completion date: October 1999
   Planned Scientist years expended for FY 1997: 1
   Planned costs for FY 1997: Unfunded
   Cooperative aspects of study: Coop. National Forest System

2. National Long-Term Soil Productivity Study. See Soil Movement 1996 #2 above. This is a continuing study.

3. Description: Effects of alternative prescriptions on upland hardwood stands. Compares clearcutting, strip cutting, and deferment cutting on the basis of productivity, costs, and site impacts. Includes measurement of soil movement within areas as well as off-site transport.
   Planned completion date: FY97
   Planned scientist years FY 1997: 0.2
   Planned costs for FY 1997: $20K
   Cooperative aspects of study: Co-primary investigators with Auburn University; supported with in-kind by Champion International Corporation.

[c] Site deterioration
1996 Studies

1. Study description: Effect of stand density management on stand vigor and resistance to bark beetle attack. Three stand density treatments: light thinning ,heavy thinning and light thinning with small gaps (+ no harvest controls) are being studied in 3 replications across the Applegate Watershed in southwest Oregon. Growth response, bark-beetle related mortality, changes in stand structure and composition will be assessed.
   Primary Investigator: Mike Amaranthus, PNW Station 541-471-6581
   Planned completion date: 1/1/2007
   Planned Scientist years expended for FY 1996: .1
   Planned costs for FY 1996: $10,000
   Cooperative aspects of study: Oregon State University, National Biological Survey, Medford District of the BLM and Rogue River National Forest are all assisting in the study. Similar replications are occurring on the Willamette National Forest and the Eugene District of the BLM.

2. Study description: Develop decision-support tools: (1) Ratings for specific soil series in western Washington and Oregon as to their relative (a) vulnerability to physical disturbance (compaction and displacement) from timber harvesting and (b)

vulnerability to nutrient removals via whole-tree harvest. (2) means to mitigate the physical and nutrient effects of timber harvest and site preparation on soil productivity.
Planned completion date: December 1996
Planned Scientist years expended for FY 1996: 0.40
Planned costs for FY 1996: $60,000
Cooperative aspects of study: All costs, including PI's salary, paid by Weyerhaeuser Company.

3. Study description: Quantify the effects of timber harvest and subsequent mitigative soil cultivation on soil properties and tree growth. This will summarize data from past field trials.
Planned completion date: December 1996
Planned Scientist years expended for FY 1996: 0.10
Planned costs for FY 1996: $15,000
Cooperative aspects of study: All costs, including PI's salary, paid by Weyerhaeuser Company.

4. Study description: National Long-term Soil Productivity Study (LTSP) is a joint National Forest System/Forest Service Research study to "evaluate timber management impacts on long-term soil productivity. Initiated in 1989, this national study of long-term soil productivity includes a national network of over 40 research installations with associated soil and vegetation data, established across a broad spectrum of forest ecosystems.

   The objectives of the study are to: (1) quantify the effects of soil disturbance from management activities on long-term productivity; (2) validate soil monitoring standards developed in compliance with the National Forest Management Act of 1976; (3) better understand the fundamental relationships between soil properties, long-term productivity and forest management practices; and (4) evaluate the potential for mitigating the adverse effects of disturbance.

   The bulk of the LTSP study will be to evaluate the effects of organic matter removal (timber harvesting) and compaction on the the capability of the site to produce sustainable levels of forest vegetation.

   Planned completion date: Initial results for early growth and development of vegetation, 2000. Additional results every five years in these long-term studies.
   Planned Scientist years expended for FY 1996-7: 0.7 per year.
   Planned costs for FY 1996-7: $140,000 per year.
   Cooperative aspects of study: University of California - movement of organic solutions. Michigan Tech University - nitrogen accumulation. Virginia Tech University - Soil water potential.

5. Study description: Cut to Length Harvesting Systems. Three mechanized thinning systems and one manual thinning treatment will be conducted in a 35-year-old pine plantation and in an 80-year-old natural stand of mixed conifers in California. The research will contrast a (1) "cut-to-length" harvester/forwarder, (2) a whole tree harvester feller-buncher, and (3) a "hybrid" tracked harvester-skidder system, as well as (4) a manually thinned, hand-removal treatment. The objective is to understand the degree of soil disturbance and effects on tree growth occurring under different types of mechanized thinning.

Planned completion date: 2000
Planned Scientist years expended for FY 1996-7: 0.1 per year.
Planned costs for FY 1996-7: $20,000 per year.
Cooperative aspects of study: University of California, Davis - effects of equipment.

6. Study description: Blacks Mountain Interdisciplinary Research. This long-term research is designed to evaluate the effects of creating two biologically different forest conditions at a 200 acre scale. Timber harvesting will create the two forest conditions that develop contrasting old-growth forest conditions of high and low structural diversity. The research will determine individual and cumulative effects of harvesting, periodic prescribed fire, and grazing. This study will develop specific responses to site deterioration questions as well as the full range of ecosystem response.

   Planned completion date: 1998 for initial treatments with subsequent monitoring for ten years.
   Planned Scientist years expended for FY 1996-7: 1.0 per year.
   Planned costs for FY 1996-7: $111,000 per year.
   Cooperative aspects of study: Humboldt State University - wildlife effects, University of California, Davis - range ecology.

7. Study description: The Heber/Mud Tanks research study was set up to evaluate fuelwood harvesting on pinyon-juniper woodland sites. It is designed to determine the nutrient losses associated with fuel wood removal, the best way to handle slash, how long it will take for the pinyon-juniper to grow back, the effects on the soil, site productivity, forage production [for livestock, elk, and deer], and small mammal populations.
   Planned completion date: 1999-2001
   Planned Scientist years expended for FY 1996: 1.3
   Planned costs for FY 1996: $30,000
   Cooperative aspects of study: Heber Ranger District of the Appache-Sitgreaves National Forest

8. Study description: Long Term Soil Productivity Study (National)
   Planned Completion Date: Long-term First 5 years on two sites 12/96.
   Planned Sci. Yr. Expended for FY 96: 0.7
   Planned cost for FY96: $20,000, continuing in 1997
   Cooperative Aspects: Chippewa National Forest, MN, Ottawa National Forest, MI, Huron-Manistee National Forest, MI,

9. Study description: Logging Impact Study - (Lake States)
   Planned Completion Date: Long-term, 2000.
   Planned Sco. Yr. Expended for FY 96: 0.3
   Planned Cost for FY96: $10,000, continuing in 1997
   Cooperative Aspects: Chippewa, Ottawa, Huron-Manistee N.F. and Fletcher Challenge Paper Co.-MN.

10. Study description: A study is being established in connection with the National Long-Term Soil Productivity Study to determine the effects of timber harvest, soil compaction, and organic matter removal upon herbaceous vegetation, soil carbon, mineralization, and nutrient cycling.
    Planned completion date: December 1999.
    Planned scientist years expended for FY 1996: 0.20.

Planned cost for FY 1996: $40,000.
Cooperative aspects of study: Coop. U of MO.

11. Study description: Phase II Ecosystem Management Research on the Ouachita NF -- Impacts of partial-cutting methods on some soil physical and chemical properties
Planned completion date: 1998
Planned Scientist years expended for FY 1996: 0.5
Planned costs for FY 1996: $10,000
Cooperative aspects of study: University of Arkansas-Monticello, Ouachita NF

12. Study description: Effects of site amelioration on next rotation slash and loblolly pine. A 22-year-old loblolly and slash pine research plantation was clearcut harvested and replanted with the same species to compare tree growth between the two rotations and determine if site productivity decline had occurred; the plots were established in a randomized complete block design and included a bedding treatment to ameliorate poor site drainage.
Planned completion date: October 2003
Planned Scientist years expended for FY 1997: .2
Planned costs for FY 1997: $20,000
Cooperative aspects of study: none

13. Study description: Fertilizer, litter, and herbicide effects on soil moisture and temperature, loblolly pine height and diameter growth, and competing vegetation. Following logging, several vegetation management techniques can be used to lessen site damage and influence regeneration development on pine sites; the plots were established in a randomized complete block factorial design.
Planned completion date: October 1999
Planned Scientist years expended for FY 1997: .2
Planned costs for FY 1997: $20,000
Cooperative aspects of study: none

14. Study description: Evaluation of timber management impacts on long-term soil productivity on the National Forests in Louisiana, Mississippi, and Texas. The effects of soil compaction, logging residue removal, and ameliorIation practices are being measured on four sites using a peer-reviewed study design that is common to other locations in the US. Emphasis is on quantifying impacts on forest productivity as well as the soil processes involved.
Planned completion date: 2050
Planned Scientist years expended for FY 1996: 0.5
Planned costs for FY 1996: $100,000
Cooperative aspects of study: Soil Scientist in Regional Office (Region 8) is co-investigator on study and soil scientists on each Forest monitor the progress so information is rapidly incorporated into soil quality standards. Research is also directly linked to studies in four other Stations as well as indirectly to tropical studies via the Primary Investigator's collaboration with the Centre for International Forestry Research (CIFOR). Soil water and temperature regimes are being studied in cooperation with Dr. Wayne Hudnall, Dept. of Agronomy, Louisiana State University and a graduate student.

15. Study description: A study was initiated in 1979 to measure the effects of wet weather logging practices and soil repair practices on the growth of southern pine. The field layout was done using a statistically sound design on large plots making long-term

measurements possible.
Planned completion date: 2010
Planned Scientist years expended for FY 1996: 0.1
Planned costs for FY 1996: $2000
Cooperative aspects of study: Study is located on Boise Cascade's land with the company paying for most of the plot installation and maintenance costs.

16. Study description: The effect of logging, site preparation and fertilization on the growth of two rotations of slash pine is in the second rotation of measurements. Soil physical and chemical characteristics are being measured to evaluate the impact of logging and associated practices on the sustainability of production on fragile coastal plain soils.
Planned completion date: 1999
Planned Scientist years expended for FY 1996: 0.1
Planned costs for FY 1996: $2000
Cooperative aspects of study: none

17. Study description: Long Term Soil Productivity (LTSP) installation in North Carolina (national and international project to determine the impact of potential logging damage on forest soil productivity). The study focuses on productivity, growth responses, changes in soil characteristics and nutrient and water supplying capacity, organic matter and nutrient conversion rates as governing factors in productivity, and plant community development and composition.
Planned completion date: Various completion dates depending upon the substudy involved. The overall LTSP is planned to run for a rotation (>50 years for loblolly pine on the southern National Forests)
Planned Scientist years expended for FY 1996: 3
Planned costs for FY 1996: $600,000
Cooperative aspects of study: Southern Region, National Forest System; International Paper Company; Weyerhaeuser Company; North Carolina State University; North Carolina A&T State University

18. Study description: Impact of Pine straw litter raking on long term productivity
Planned completion date: February, 2002
Planned Scientist years expended for FY 1996: 0.1
Planned costs for FY 1996: $15,000
Cooperative aspects of study: Savannah River Forest Station (and Department of Energy -- Savannah River Site); Southern Region, National Forest System

19. Study description: Effect of fire on Heterobasidion annosum infection and losses in longleaf pines at Savannah River Site
Planned completion date: June, 1997
Planned Scientist years expended for FY 1996: 0.2
Planned costs for FY 1996: $15,000
Cooperative aspects of study: Savannah River Forest Station (and Department of Energy -- Savannah River Site)

20. Study description: This project is designed to determine the effects of harvesting bottomland hardwood forests on soil, vegetation, and water resources. The study is a regional, interagency initiative designed to establish the sustainability of wetland processes and timber resource production.
Planned completion date: 2003

Planned Scientist years expended for FY 1996: 2.5
Planned costs for FY 1996: $200K
Cooperative aspects of study: This project is a cooperative between USFS, National Biological Service, Corps. of Engineers, Natural Resource Conservation Service, U.S. Geological Survey and Westvaco, Inc.

21. Study description: Impacts of wet-weather logging on forest soils and tree productivity. This study has characterized the effects of harvesting and practices to ameliorate damage associated with wet-weather logging.
Planned completion date: 5/96
Planned Scientist years: 0.1
Planned costs: $3K
Cooperative aspects of study: This study has been a cooperative between Virginia Tech University and the Francis Marion National Forest.

22. Study description: Re-evaluation of site impacts. Study involves remeasurement of bulk density on ground-skidded sites 7 years after operations. The study will affect our understanding of the severity and persistence of soil disturbance.
Planned scientist years FY 1996: 0.15
Planned costs for FY 1996: $10K
Cooperative aspects of study: Work is conducted on national forests in Georgia and Mississippi as well as on Georgia-Pacific holdings in Georgia.

23. Study description: Influence of harvesting operations on root injury, root production, and water relations in loblolly pine. Examines the impact of mechanized traffic on root injury and alteration of soil site conditions on root production and tree-water relations.
Planned completion date: FY 1998
Planned scientist years FY 1996: 0.2
Planned costs for FY 1996: $42K
Cooperative aspects of study: Co-primary investigators with Auburn University School of Forestry.

24. Study description: Assessment of soil impacts associated with harvesting in a tropical high forest. Examines the impact of conventional tropical harvesting practices on soil physical properties in the Tapajos National Forest along the Amazon in Brazil.
Planned scientist years FY 1996: 0.1
Planned costs for FY 1996: $20K
Cooperative aspects of study: Co-primary investigators with Auburn University, partially funded by FAO, supported by interdisciplinary efforts within Brazil.

25. Study description: Prediction of timber harvesting effects on soil physical properties: a model for the Coastal Plain. Examines the impact forest harvest systems upon Coastal Plain soils of selected drainage class and texture for the development of a site impact prediction model.
Planned completion date: FY 1997
Planned scientist years FY 1996: 0.1
Planned costs for FY 1996: $23K
Cooperative aspects of study: Co-primary investigators with Virginia Polytechnic Institute and State University, supported

with in-kind by Westvaco Corporation.

26. Study description: Prediction of timber harvesting effects on soil physical properties: a model for the Piedmont. Examines the impact of forest harvest systems upon Piedmont soils of selected erosion class and texture for the development of a site impact prediction model.
    Planned completion date: FY 1997
    Planned scientist years FY 1996: 0.2
    Planned costs for FY 1996: $10K
    Cooperative aspects of study: Co-primary investigators with Virginia Polytechnic Institute and State University.

27. Study description: Effect of tire size and configuration on soil compaction of forwarders. Investigated the effect of two tire sizes, tracks, and axle configuration on bulk density changes in a Coastal Plain soil.
    Planned completion date: FY 1996
    Planned scientist years FY 1996: 0.1
    Planned costs for FY 1996: $8K
    Cooperative aspects of study: Co-primary investigators with University of Sao Paulo supported in kind by Weyerhaeuser Corporation, Bridgestone-Firestone Inc., and Olofsfors AB.

28. Study description: Effects of alternative forest management practices (roads, harvesting levels and techniques and site preparation on nutrient cycles, soil nutrients, and future productivity: Experiments and Modeling.
    Planned Completion Date: 2000
    Planned Scientist years expended for 1996: 2.5
    Planned costs for FY 1996: 100,000
    Cooperative aspects of study: Nantahala N.F., University of Georgia, University of Minnesota, Virginia Tech and State University, Clemson University, Portland State University, Department of Energy, Oak Ridge National Laboratory, Desert Research Institute, and several other work units in research stations.

[c] Site deterioration
1997 Planned Studies

1. Study description: Sustaining productivity of managed forests.
   Planned completion date:
   Planned Scientist years expended for FY 1997:
   Planned costs for FY 1997:
   Cooperative aspects of study: Scientists from industry, universities, and state and federal agencies completed a study plan in May 1995. Since then, cooperative funding to implement this plan was sought unsuccessfully.

2. See 1996 studies 4, 5, and 6 above. The Long-Term Soil Productivity Study, Cut to Length Harvesting Systems Study and Blacks Mountain Interdisciplinary Research are continuing studies.

3. Study description: A study is being established in connection with the National Long-Term Soil Productivity Study to determine the effects of timber harvest, soil compaction, and organic matter removal upon herbaceous vegetation, soil carbon, mineralization, and nutrient cycling.
   Planned completion date: December 1999.

Planned scientist years expended for FY 1997: 0.20.
Planned cost for FY 1997: $60,000.
Cooperative aspects of study: Coop. U of MO.

4. Study description: Phase II Ecosystem Management Research on the Ouachita NF -- Impacts of partial-cutting methods on some soil physical and chemical properties
Planned completion date: 1998
Planned Scientist years expended for FY 1997: 0.5
Planned costs for FY 1997: $10,000
Cooperative aspects of study: University of Arkansas-Monticello, Ouachita NF

5. Study description: Long Term Soil Productivity (LTSP) Project in North Carolina (national and international project to determine the impact of potential logging damage on forest soil productivity). The study focuses on productivity, growth responses, changes in soil characteristics and nutrient and water supplying capacity, organic matter and nutrient conversion rates as governing factors in productivity, and plant community development and composition.
Planned completion date: Various completion dates depending upon the substudy involved. The overall LTSP is planned to run for a rotation (>50 years for loblolly pine on the southern National Forests)
Planned Scientist years expended for FY 1997: 3.5
Planned costs for FY 1997: $700,000
Cooperative aspects of study: Southern Region, National Forest System; International Paper Company; Weyerhaeuser Company; North Carolina State University; North Carolina A&T State University

6. Study description: Impact of Pine straw litter raking on long term productivity
Planned completion date: February, 2002
Planned Scientist years expended for FY 1997: 0.1
Planned costs for FY 1997: $15,000
Cooperative aspects of study: Savannah River Forest Station (and Department of Energy -- Savannah River Site); Southern Region, National Forest System

7. Study description: Effect of fire on Heterobasidion annosum infection and losses in longleaf pines at Savannah River Site
Planned completion date: June, 1997
Planned Scientist years expended for FY 1997: 0.2
Planned costs for FY 1997: $15,000
Cooperative aspects of study: Savannah River Forest Station (and Department of Energy -- Savannah River Site)

8. Study description: Impacts of harvesting and site preparation on isolated wetlands. This study is part of a landscape-modeling assessment on the effects of forest management practices on amphibians and birds in the lower coastal plain.
Planned completion date: 2000
Planned Scientist years expended for FY 1997: 2.0
Planned costs for FY 1997: $150K
Cooperative aspects of study: This is a cooperative project with International Paper, Inc., National Council of the Paper Industry for Air and Stream Improvement, Inc., National Audubon Society, University of Georgia, Clemson University.

9. Study description: Influence of harvesting operations on root injury, root production, and water relations in loblolly pine. Examines the impact of mechanized traffic on root injury and altered soil site conditions on root production and tree-water relations.
   Planned scientist years FY 1997: 0.2
   Planned costs for FY 1997: $22K
   Cooperative aspects of study: Co-primary investigators with Auburn University School of Forestry.

10. Study description: Prediction of timber harvesting effects on soil physical properties: a model for the Coastal Plain. Examines the impact of forest harvest systems upon Coastal Plain soils of selected drainage class and texture for the development of a site impact prediction model.
    Planned completion date: FY 1997
    Planned scientist years FY 1997: 0.1
    Planned costs for FY 1997: $20K
    Cooperative aspects of study: Co-primary investigators with Virginia Polytechnic Institute and State University and in kind support by Westvaco Corporation.

11. Study description: Prediction of timber harvesting effects on soil physical properties: a model for the Piedmont. Examines the impact of forest harvest systems upon Piedmont soils of selected erosion class and texture for the development of a site impact prediction model.
    Planned completion date: FY 1997
    Planned scientist years FY 1997: 0.2
    Planned costs for FY 1997: $40K
    Cooperative aspects of study: Co-primary investigators with Virginia Polytechnic Institute and State University.

12. Study description: Effects of alternative forest management practices (roads, harvesting levels and techniques and site preparation on nutrient cycles, soil nutrients, and future productivity: Experiments and Modeling.
    Planned Completion Date: 2000
    Planned Scientist years expended for 1997: 2.0
    Planned costs for FY 1997: 50,000
    Cooperative aspects of study: Nantahala N.F., University of Georgia, University of Minnesota, Virginia Tech and State University, Clemson University, Portland State University, Department of Energy, Oak Ridge National Laboratory, Desert Research Institute, and several other work units in research stations.

[d] Streams and Rivers
1996 Studies

1. Study description: Long-term changes in stream and riparian conditions, including response to floods. Interactions of woody debris in channels, sediment transport, riparian vegetation conditions, disturbances delivered from hillslopes and tributaries, and aquatic biotic responses to floods.
   Planned completion date: Indefinite, long term (for Andrews Experimental Forest LTER grant from National Science Foundation funding has been committed through 2002).
   Planned Scientist years expended for FY 1996: 10/year.
   Planned costs for FY 1996: $300,000

Cooperative aspects of study: Oregon State University, Willamette NF, University of Oregon, National Science Foundation (including the Andrews Forest Long-Term Ecological Research program).

2. Study description: Analysis of natural and logging-related erosion on stream channel morphology and bed characteristics. Study will develop concepts of wood and sediment movement and storage within channels and consequences for aquatic habitat.
   Planned completion date: June 1997.
   Planned Scientist years expended for FY 1996: 0.8
   Planned costs for FY 1996: $30,000
   Cooperative aspects of study: Dept. of Geosciences, Oregon State University.

3. Study description: Monitoring cumulative effects of forest land use.
   Planned completion date: 2001
   Planned Scientist years expended for FY 1996: 0.1
   Planned costs for FY 1996: $10,000
   Cooperative aspects of study: Tongass National Forest

4. Study description: Succession of large wood debris in third and fourth order streams.
   Planned completion date: March 15, 1997
   Planned Scientist years expended for FY 1996: 0.8
   Planned costs for FY 1996: $20,000
   Cooperative aspects of study: National Forest Systems

5. Study description: Effects of logging and road construction on stream sediment loads and stream channel morphology.
   Planned completion date: 1998
   Planned Scientist years expended for FY 1996: 2.0
   Planned costs for FY 1996: $400,000
   Cooperative aspects of study: Boise National Forest, Bureau of Land Management, National Council for Air and Stream Improvement.

6. Study description: Monitoring suspended sediment and bedload transport in control and harvested watersheds on the east fork of the Encampment river. Discharge related samples are collected at fixed cross section locations in one stream impacted and one stream unimpacted by timber harvest and road construction. One objective of the monitoring is to identify and quantify the impact of management actions on sediment movement and water yield, both quantity and timing. Forest Service Research is active in the monitoring/measurement aspects of the effort and daily operation is the responsibility of National Forest System personnel.
   Planned completion date: Ongoing
   Planned scientist years: 1/10 scientist year
   Planned costs for FY 1996: $12,000 Rocky Mountain Research Station; $30,000 Rocky Mountain Region, National Forest System
   Cooperative aspects of study: Research and National Forest System, joint venture with participation by Natural Resources Conservation Service and University of Wyoming

7. Study description: Impact of Land-Use, Watershed Storage, and BasinSlope on Bankfull Discharge in USGS-gaged basins of the Lake States
   Planned Completion Date: May, 1999.
   Planned Sci. Yr. Expended for FY 96: 0.5
   Planned Cost for FY96: $20,000, continuing in 1997

Cooperative Aspects: Superior National Forest, Natural Resources Conservation Service in MN and WI, and United States Geological Survey

8. Study description: Large woody debris aspects of blowdown in riparian areas.
   Planned Completion Date: Long-term. just beginning.
   Planned Sci. Yr. Expended for FY 96: 0.3
   Planned cost for FY 96: $10,000, Continuing in 1997
   Cooperative Aspects: Chippewa National Forest, possibly Fletcher Challenge Paper Co.

9. Study description: Determine the impact of large woody debris on cold water stream habitat in Northern Wisconsin. Study is continuing from 1995. Study is assessing the physical (stream channel morphology and thermal characteristics) and biological (resident fish community) response to removal of LWD.
   Planned completion date: 1997
   Planned Scientist years expended for FY 1996: 0.25 SY
   Planned costs for FY 1996: $20,000
   Cooperative aspects of study: Wisconsin DNR

10. Study description: Water quality effects of temporary stream crossings. Compares sediment loading during installation, removal, and use of temporary crossings. Culverts, fords, and temporary bridges are included in the study.
    Planned scientist years FY 1996: 0.1
    Planned costs for FY 1996: $25K
    Cooperative aspects of study: Auburn University, study is installed on the Talladega National Forest.

11. Study description: Implications of bottomland hardwood management at the landscape scale. Compares patch clearcutting with selection cutting on a bottom land site. Response variables include changes in nutrient cycling, root growth, and suspended sediments in sheetflow.
    Planned scientist years FY 1996: 0.05
    Planned costs for FY 1996: $25K
    Cooperative aspects of study: Co-primary investigators with Auburn University, supported with in-kind by Georgia-Pacific Corporation

12. Study description: Impacts of road building in a bottom land hardwood ecosystem. Compares four road surfacing treatments and other management practices on suspended sediment in flood sheetflow. Currently in year 3. Additional research plots will be installed on newly constructed roads in FY96.
    Planned scientist years FY 1996: 0.15
    Planned costs for FY 1996: $15K
    Cooperative aspects of study: Co-primary investigators with Auburn University, supported with in-kind by Georgia-Pacific Corporation, partially funded by the National Council of the Paper Industry for Air and Stream Improvement, Inc.

13. Study description: Long-term studies of disturbance as they affect ecological processes in landscapes of the southern Appalachians with emphasis on streams and rivers.
    Planned Completion Date: Indefinite, Long-Term Ecological Research at Coweeta funded by National Science Foundation through 2002.
    Planned Scientist years expended for FY 1996: 14

Planned costs for FY 1996: 400,000
Cooperative aspects of study: Six universities, other federal agencies, state agencies, local government and National Science Foundation.

[d] Streams and Rivers
1997 Planned Studies

1. Study description: Long-term changes in stream and riparian conditions, including response to floods. Interactions of woody debris in channels, sediment transport, riparian vegetation conditions, disturbances delivered from hillslopes and tributaries, and aquatic biotic responses to floods.
   Planned completion date: Indefinite, long term (for Andrews Experimental Forest LTER grant from National Science Foundation funding has been committed through 2002).
   Planned Scientist years expended for FY 1997: 10/year.
   Planned costs for FY 1997: $300,000
   Cooperative aspects of study: Oregon State University, Willamette NF, University of Oregon, National Science Foundation (including the Andrews Experimental Forest Long-Term Ecological Research program).

2. Study description: Analysis of natural and logging-related erosion on stream channel morphology and bed characteristics to predict effects of logging-related accelerated erosion on channel and riparian function.
   Planned completion date: June 1997.
   Planned Scientist years expended for FY 1997: 0.8
   Planned costs for FY 1997: $30,000
   Cooperative aspects of study: Dept. of Geosciences, Oregon State University.

3. Study description: Monitoring cumulative effects of forest land use.
   Planned completion date: 2001
   Planned Scientist years expended for FY 1997: 0.1
   Planned costs for FY 1997: $10,000
   Cooperative aspects of study: Tongass National Forest

4. Study description: Determine the impact of large woody debris (LWD) on cold water stream habitat in Northern Wisconsin. Study is continuing from 1995. Study is assessing the physical (stream channel morphology and thermal characteristics) and biological (resident fish community) response to removal of LWD.
   Planned completion date: 1997
   Planned Scientist years expended for FY 1997: 0.25 SY
   Planned costs for FY 1997: $20,000
   Cooperative aspects of study: Wisconsin Department of Natural Resources

5. Study description: Water quality effects of temporary stream crossings. Compares sediment loading during installation, removal, and use of temporary crossings. Study will expand to consider contribution from road approaches.
   Planned scientist years FY 1997: 0.1
   Planned costs for FY 1997: $15K
   Cooperative aspects of study: Auburn University, study is installed on the Talladega National Forest.

6. Study description: Implications of bottomland hardwood management at the landscape scale. Compares patch clearcutting with selection cutting on a bottom land site. Response variables include changes in nutrient cycling, root growth, and suspended sediments in sheetflow.
   Planned scientist years FY 1997: 0.1
   Planned costs for FY 1997: $25K
   Cooperative aspects of study: Co-primary investigators with Auburn University, supported with in-kind by Georgia-Pacific Corporation

7. Study description: Impacts of road building in a bottomland hardwood ecosystem. Compares four road surfacing treatments and other management practices on suspended sediment in flood sheetflow. Follow-up monitoring of flood events will occur.
   Planned scientist years FY 1997: 0.15
   Planned costs for FY 1997: $15K
   Cooperative aspects of study: Co-primary investigators with Auburn University, supported with in-kind by Georgia-Pacific Corporation, partially funded by National Council of the Paper Industry for Air and Stream Improvement, Inc.

8. Study description: Long-term studies of disturbance as they affect ecological processes in landscapes of the southern Appalachians with emphasis on streams and rivers.
   Planned Completion Date: Indefinite, Long-Term Ecological Research at Coweeta funded by National Science Foundation through 2002.
   Planned Scientist years expended for FY 1997: 14
   Planned costs for FY 1997: 400,000
   Cooperative aspects of study: Six universities, other federal agencies, state agencies, local government and National Science Foundation.

[e] Fisheries
1996 Studies

1. Study description: Alternatives to Clear cut logging effects of trophic dynamics of first order streams.
   Planned commpletion date: September 30, 1999
   Planned Scientist years expended for FY 1996: 1.0
   Planned costs for FY 1996: $45,000
   Cooperative aspects of study: National Forest Systems

2. Study description: Effects of canopy type on secondary production and salmonid energy sources in second growth riparian stream ecosystems; Application to stream restoration.
   Planned commpletion date: September 30, 1998
   Planned Scientist years expended for FY 1996: 1.0
   Planned costs for FY 1996: $55,000
   Cooperative aspects of study: National Forest Systems, University of Michigan.

3. Study description: Coastal Landscape Analysis and Modeling Study (CLAMS). The fisheries component of this project examines the relationship between land-use practices (including logging), fisheries habitat and fish stock status at watershed scales. It will test the hypothesis that conditions over entire watersheds are related to fish habitat and fish stock status.
   Planned completion date: December 1998

Planned Scientist years expended for FY 1996: 1
Planned costs for FY 1996: $140,000
Cooperative aspects of study: National Biological Service, Oregon State University, State of Oregon, Coastal Oregon Productivity Enhancement (COPE) program.

4. Study description: Habitat requirements of anadromous and resident native fish in the Upper Columbia River Basin.
Planned completion date: 2000
Planned Scientist years expended for FY 1996: 3.0
Planned costs for FY 1996: $800,000
Cooperative aspects of study: National Forest Systems (Northern and Intermountain Regions), US Fish and Wildlife Service.

5. Study description: Test the efficacy of a hierarchical stream classification procedure in predicting a stream fish community complex.
Planned completion date: 1998
Planned Scientist years expended for FY 1996: 0.5 SY
Planned costs for FY 1996: $80,000
Cooperative aspects of study: Eastern Region USFS and Chequamegon and Nicolet NFs

6. Study description: Determine sample sizes necessary, using the shovel method, to evaluate streambed fine sediment levels on the Monongahela National Forest. The study examines spatial and temporal variations in fine sediment in order to (1) determine the number of samples per spawning gravel area necessary to obtain representative samples, and (2) determine how well fine sediment levels during summer (when most samples are collected) correlate to fine sediment levels during spawning periods. This research addresses the need to develop monitoring methods that reflect critical habitat requirements.
Planned completion date: Spring 1997
Planned Scientist years expended for FY 1996: 0.2
Planned costs for FY 1996: $9,000, continuing in 1997 for $5,000
Cooperative aspects of study: Monongahela National Forest

7. Study description: Experimental addition of large woody debris for restoration of fish and macroinvertebrate habitat in Southern Appalachian streams.
Planned completion date: 2000
Planned Scientist years expended for FY 1996: 0.6
Planned costs for FY 1996: $25K
Cooperative aspects of study: Virginia Tech University, George Washington and Jefferson National Forests.

8. Study description: Effects of regeneration harvest methods on trout populations in Wine Spring Creek, North Carolina. During summer 1996, replicate regeneration harvests using shelterwood, 2-aged, and selection methods will be conducted; several roads will be reopened for these harvests. Several harvest sites are located near streams and trout populations during and after regeneration harvest will be compared to baseline population estimates made seasonally during 1993-1995.
Planned completion date: 1997
Planned Scientist years expended for FY 1996: 0.1
Planned costs for FY 1996: $8K
Cooperative aspects of study: Other station and University scientists involved in the Wine Spring Creek project (SRSE-4351).

9. Study description: Effects of ultrafine sediments on stream insects. This research examines the impact of suspended sediments on trout food organisms by determining how clay particles affect stream insects during high flow events. Sources of sediments under investigation include logging roads and road maintenance activities.
   Planned completion date: December 1999.
   Planned Scientist years expended for FY 1996: 0.2
   Planned costs for FY 1997: $15K
   Cooperative aspects of study: Virginia Tech University, Duke University Wetlands Center, Wake Forest University

10. Study description: Impacts of small stream crossings on fish activity.
    Planned Completion Date: 1997
    SY Expended in FY 96: 0.1
    Planned Costs in 1996: $7,000.
    Cooperative Aspects of Study: Part of the Phase III Ouachita Ecosystem Management study. Cooperators on this small project included Arkansas Fish and Game Dept. and Ouachita National Forest.

[e] Fisheries
1997 Planned Studies

1. Study description: Study description: Coastal Landscape Analysis and Modeling Study (CLAMS). The fisheries component of this project examines the relationship between land-use practices (including logging), fisheries habitat and fish stock status at watershed scales. It will test the hypothesis that conditions over entire watersheds are related to fish habitat and fish stock status.
   Primary Investigator: Gordon Reeves, Kelly Burnett.
   Planned completion date: December 1998
   Planned Scientist years expended for FY 1997: 1
   Planned costs for FY 1997: $140,000
   Cooperative aspects of study: National Biological Service, Oregon State University, State of Oregon, Coastal Oregon Productivity Enhancement (COPE) program.

2. Study description: Upland processes, riparian structure, and channel dynamics during forest succession: effects on trout populations in the western U.S. to determine optimal conditions of stand and stream channel condition, stable pools, beaver presence, macroinvertebrate status and woody debris. The study objective is to obtain forest, riparian, and channel morphology data from throughout the Rocky Mountain West, coupled with estimates of trout population size, to determine whether forest succession has an effect on trout populations, and to determine if land management alters the interaction between succession and fish.
   Planned Completion Date: 2001
   Planned Scientist Years Expended for FY 1997: 0.25
   Planned Costs for FY 1997: $10,000
   Cooperative Aspects of Study: Participation by national forests throughout Regions 1, 2, and 4 is expected. We also anticipate the assistance of the state fish and wildlife agencies from Colorado, Montana, Utah, and Wyoming. University participation from Colorado State University or the University of Wyoming is expected.

3. Study description: Test the efficacy of a hierarchical stream classification procedure in predicting a stream fish community complex.
   Planned completion date: 1998
   Planned Scientist years expended for FY 1997: 0.5 SY
   Planned costs for FY 1997: $80,000
   Cooperative aspects of study: Eastern Region USFS and Chequamegon and Nicolet NFs

4. Study description: Experimental addition of large woody debris for restoration of fish and macroinvertebrate habitat in Southern Appalachian streams.
   Planned completion date: 2000
   Planned Scientist years expended for FY 1997: 0.6
   Planned costs for FY 1996: $25K
   Cooperative aspects of study: Virginia Tech University, George Washington and Jefferson National Forests.

5. Study description: Effects of regeneration harvest methods on trout populations in Wine Spring Creek, North Carolina. During summer 1996, replicate regeneration harvests using shelterwood, 2-aged, and selection methods will be conducted; several roads will be reopened for these harvests. Several harvest sites are located near streams and trout populations during and after regeneration harvest will be compared to baseline population estimates made seasonally during 1993-1995.
   Planned completion date: 1997
   Planned Scientist years expended for FY 1997: 0.2
   Planned costs for FY 1997: $10K
   Cooperative aspects of study: Other Station and University scientists involved in the Wine Spring Creek project (SRSE-4351).

6. Study description: Effects of ultrafine sediments on stream insects. This research examines the impact of suspended sediments on trout food organisms by determining how clay particles affect stream insects during high flow events. Sources of sediments under investigation include logging roads and road maintenance activities.
   Planned completion date: December 1999.
   Planned Scientist years expended for FY 1997: 0.3
   Planned costs for FY 1997: $25K
   Cooperative aspects of study: Virginia Tech University, Duke University Wetlands Center, Wake Forest University

[f] other
1996 Studies

1. Study description: Effects of landscape-scale logging on wildlife and other measures of biological diversity. This is a component of the Coastal Landcape Analysis and Modeling study (CLAMS). This project will determine how landscape-scale patterns of logging and other land-use acitivities influence distribution of selected vertebrate species and aggregate measures of ecosystem condition across a range of logging intensities.
   Planned completion date: December 1998
   Planned Scientist years expended for FY 1996: 2.0
   Planned costs for FY 1996: $500,000 (including cooperator support).
   Cooperative aspects of study: NBS, OSU, Coastal Oregon

Productivity Enhancement (COPE) Program.

2. Study description: Long Term Ecosystem Productivity/Integrated Research Sites - This integrated study will provide managers, scientists, and the public with a better understanding of how several different strategies to manage forests and the ecological, social, and economic tradeoffs of those strategies. The core elements of the study link to the NFMA requirement to manage forests without impairing long term productivity. Forest health, fiber production, soil properties, public acceptance, plant communities and animal communities will be assessed on at least four large sites. Three sites have been sold as timber sales (approximately 30 million board feet) and post-harvest comparisons will begin this year.
Planned completion date: 2196 (200 years)
Planned Scientist years expended for FY 1996: 4.5
Planned costs for FY 1996: $413,000 (salaries and operating expenses only; does not include overhead/fixed costs) or cooperator contributions.
Cooperative aspects of study: Cooperators include the National Forest System (3 research sites - Siskiyou, Willamette, Wenatchee National Forests, and personnel to assist in implementation), the US Environmental Protection Agency (carbon budgets), Oregon State University (organic matter, nutrient cycling, and soils portions of the study), University of Oregon (Scenic Perceptions of Different Ecological Treatments), Washington State Department of Natural Resources (1 research site in the Olympic State Experimental Forest).

3. Study description: Rain-on-snow flood potential. An algorithm was developed to determine rain-on-snow flood potential from available temperature and precipitation data. It was applied to the Columbia River Basin to determine rain-on-snow potential for 3 characteristic climate years. A 100-year time series is being generated for the state of Oregon that will be used to analyze the long-term spatial and temporal variability of rain-on-snow flood potential.
Planned completion date: 9/96
Planned Scientist years expended for FY 1996: 2
Planned costs for FY 1996: $80,000
Cooperative aspects of study: Several groups within the Columbia River Basin environmental impact assessment team are using results from the rain-on-snow potential maps to help assess impact from these significant flood events. Stream morphologists at the U. of Washington and Oregon State U. have indicated interest in rain-on-snow potential maps to help determine the effect of logging on stream flow and channeling.

4. Study description: Blow-down potential. An algorithm was developed to determine the potential for wind damage to trees based on differences between prevailing winds and storm winds. It is being compared with similar studies in the Bull Run region of northern Oregon. A 30-year time series of monthly mean wind has been generated for the state of Oregon to help investigate the spatial and temporal variability of blow-down potential.
Planned completion date: 9/96
Planned Scientist years expended for FY 1996: 1/2
Planned costs for FY 1996: $30,000
Cooperative aspects of study: Maps of blow-down potential can be overlain with harvest patterns, soil conditions, stand structure,

land use, and branch ice accumulations to accurately determine the effect of harvest patterns on wind damage. In addition, tip-over rates can be determined with the model to estimate fuel sources for wild fire, altered wildlife habitat, and hydrologic regime.

5. Study description: A study of green tree retention levels and patterns in western Oregon and Washington. The core elements of the study link to key assumptions in the Northwest Forest Plan regarding the level and pattern of green-tree retention. Public acceptance, economics, hydologic effects, plant, fungal and animal communities can be assessed.
   Planned completion date: 2004
   Planned Scientist years expended for FY 1996: 2.5
   Planned costs for FY 1996: $489,000
   Cooperative aspects of study: Cooperators include the National Forest System, Oregon State University and University of Washington (vegetation, wildlife and fungi), University of Oregon (Scenic Perceptions of Different Ecological Treatments), Washington State Department of Natural Resources (1 research site)

6. Study description: "Effects of three thinning strategies on future disease losses in coastal Douglas-fir stands with extensive laminated root rot."
   Planned completion date: 2017
   Planned Scientist years expended for FY 1996: 0.5 SY
   Planned costs for FY 1996: PNW $50K; S&PF $150.3K; Cooperators $117.7K
   Cooperative aspects of study: 12 Private Companies; 1 State agency; 2 Federal agencies

7. Study description: "Impact of thinning on resulting blowdown in coastal Oregon stands with laminated root rot"
   Planned completion date: 2015
   Planned Scientist years expended for FY 1996: 0.2 SY
   Planned costs for FY 1996: PNW $85K; ODF $5K
   Cooperative aspects of study:1 Private Company; 1 State Agency; Coastal Oregon Productivity Enhancement (COPE) Program.

8. Study description: "Impact of laminated root rot on growth and yield in thinned coastal Oregon Douglas-fir stands."
   Planned completion date: 2008
   Planned Scientist years expended for FY 1996: 0.1 SY
   Planned costs for FY 1996: PNW $20K
   Cooperative aspects of study: 14 Private Companies; 1 State agency; 2 Federal agencies

9. Study Description: Study to determine the effects of logging on both physical-chemical and biological components of marshes in The Snowy Range Mountains of the Medicine Bow National Forest. Most of these habitats are located in densely forested low gradient areas that are often identified as prime habitat for cutting timber. For two consecutive years (1994 & 1995), temperature, pH, oxygen, nutrient concentrations, and the invertebrate fauna were compared in three recently logged versus three reference marshes of similar size and depth. Although this research is still in progress, the results (relative abundance of specific invertebrate species) can be used to identify taxa that can function as biomonitoring tools or indicators of environmental degradation in montane wetland habitats.
   Planned Completion Date: December 1996

Planned Scientist Years Expended for FY 1996: 1/10th of a single SY
Planned Costs for FY 1996: $13,500
Cooperative Aspects of Study: This study is being done in cooperation with the Statistics Department, University of Wyoming

10. Study description: Landscape analysis of amphibian habitat requirements. This research will develop an understanding of the relation of amphibians to habitat types in Upper Great Lakes Region, requirements for reproductive habitat, influence of climate and landform on abundance of amphibians, and impacts of forest management.
Planned completion date: 2001
Planned Scientist years expended for FY 1996: 0.2 SY
Planned costs for FY 1996: $25,000
Cooperative aspects of study: Chippewa NF, Minnesota DNR

11. Study description: Evaluate and compare large woody debris in nearshore zone of lakes within old growth and second growth forests. Study is continuing from 1994.
Planned completion date: 1996
Planned Scientist years expended for FY 1996: 0.10 SY
Planned costs for FY 1996: $5,000
Cooperative aspects of study: Michigan State University

12. Study description: Effects of forest management on breeding neotropical migratory birds along the Bad River corridor: a boundary analysis. Study is continuing from 1994.
Planned completion date: 1996
Planned Scientist years expended for FY 1996: 0.10 SY
Planned costs for FY 1996: $5,000
Cooperative aspects of study: University of Wisconsin- Green Bay

13. Study description: Effect of calcium chloride on movements of amphibians. Study is a continuation of research begun in 1992 to determine whether the application of calcium chloride to gravel roads was causing mortality of salamanders.
Planned completion date: 1997
Planned Scientist years expended for FY 1996: 0.05 SY
Planned costs for FY 1996: $2,000
Cooperative aspects of study: Superior NF

14. Study description: Wood turtle habitat use on the Cloquet River. This research is a continuation of research begun in 1990 to determine whether forest management in the riparian zone was negatively affecting the abundance of wood turtles.
Planned completion date: 1997
Planned Scientist years expended for FY 1996: 0.40 SY
Planned costs for FY 1996: $30,000
Cooperative aspects of study: Minnesota DNR, Superior NF

15. Study description: The study is designed to measure the effect of earthworm activity on soil properties and nutrient cycling following organic matter removal and compaction in Central Hardwood Forests.
Planned completion date: December 1997.
Planned scientist years expended for FY 1996: 0.20.
Planned cost for FY 1996: $75,000.
Cooperative aspects of study: Coop. U of MO.

16. Study description: Ecological interactions of vegetation & plethodontid salamanders for Missouri Ozark forests. This study compares salamander populations in recent clearcuts, mature second growth, and old-growth central hardwood forest in Missouri.
    Planned completion date: 1996
    Planned scientist years expended for FY 96: 0.1
    Planned Costs for FY 96: 15,000
    Cooperative aspects of study: Cooperative study with University of Missouri.

17. Study description: Composition, Structure, and Dynamics of Forest Ecosystems in the Missouri Ozark Forest Ecosystem Project. This study analyses pretreatment data for a long term study of the impacts of forest harvesting practices in the Missouri Ozarks.
    Planned completion date: 1998
    Planned scientist years expended for FY 96: 0.2
    Planned Costs for FY 96: $100,000
    Cooperative aspects of study: Cooperative project with the Missouri Department of Conservation, some funding received from the Missouri Department of Conservation

18. Study description: Effects of natural & management related disturbance regimes on composition & pattern of Central Hardwood landscapes. Development of a landscape-level simulation model to predict impacts of land-use practices (including logging) and natural disturbances on central hardwood landscapes.
    Planned completion date: 1998
    Planned scientist years expended for FY 96: 0.8
    Planned Costs for FY 96: $120,000
    Cooperative aspects of study: University of Missouri

19. Study description: An analysis of the size and age structure of the Pioneer Forest. This study determines impacts on the selection method of timber harvest by analyzing long term records of one of the few forests practicing this method in the Midwest.
    Planned completion date: 1997
    Planned scientist years expended for FY 96: 0.5
    Planned Costs for FY 96: $75,000
    Cooperative aspects of study: Part of this research is conducted through two cooperative research agreements with University of Missouri.

20. Study description: Management of Central Hardwood Landscapes for the conservation of neotropical migratory birds. A review and synthesis of the impacts of land management-practices (including logging) on migratory songbirds.
    Planned completion date: 1996
    Planned scientist years expended for FY 96: 0.1
    Planned Costs for FY 96: $12,000
    Cooperative aspects of study: Project involves Illinois Natural History Survey and Indiana University.

21. Study description: Uneven-aged management on the Mark Twain National Forest. This study assess the response of woody vegetation to the application of the group-selection method of timber harvest in the Missouri Ozarks.
    Planned completion date: 1998
    Planned scientist years expended for FY 96: 0.1
    Planned Costs for FY 96: $20,000
    Cooperative aspects of study: This is an Administrative Study

with the Mark Twain National Forest.

22. Study description: "Evaluation and demonstration of cable yarding on flat wetland and upland sites in the Lake States region". The objectives of this project are to evaluate the productivity, cost, and site impacts of cable yarding on flat wetland and upland sites; to make direct comparisons between this system and a conventional skidder system; and to increase awareness of this system among landowners, contractors, and land managers through demonstration.
Planned completion date: December 31, 1996
Planned scientist years for 1996: .5
Planned costs for 1996: $32,500
Cooperation: Minnesota DNR, University of Minnesota

23. Study description: "Evaluate the remediation of soil compaction one year after harvesting a northern hardwood timber stand". The objective of this project is to determine the degree to which soil compaction in a northern hardwood timber stand is reduced after one winter cycle of freezing and thawing. Soil samples for bulk density will be taken in similar locations to those taken immediately after harvesting and comparative analyses will be conducted.
Planned Completion date: September 30, 1996
Planned scientist years for 1996: .1
Planned costs for 1996: $3,400
Cooperation: Funding is being provided by Menominee Tribal Enterprises of Keshena, WI

24. Study description: "Identification and demonstration of Alternative water and wetland crossing structures". The objective of this project is to compile and disseminate existing information about alternative water and wetland crossing structures that protect soil and water resources and to facilitate active demonstrations of these technologies.
Planned completion date: December 31, 1996
Planned scientists years for 1996: .1
Planned costs for 1996: $34,829
Cooperation: This is a University of Minnesota study funded by the Great Lakes Protection Fund. The FS is a collaborator in this project.

25. Study Description: Long-term effects of harvesting practices on forested wetlands. Cooperative study examining several even-aged and uneven-aged practices in bottomland hardwood forests. Most measurements are taken of the vegetative community, examining the effects on biodiversity but also sampling soils for changes in bulk density and impacts on site productivity.
Planned Completion Date: 1999
SY Expended in FY 96: 0.1
Planned Costs in 1996: $9,000
Cooperative Aspects of Study: Done in cooperation with Mississippi State University (PhD study). Challenge cost-share funding from the National Council of the Paper Industry for Air and Stream Improvement, Inc., Anderson-Tully, and Southern Research Station. Study sites on Anderson Tully, Fish and Wildlife Service NWRs, Delta National Forest, and Mississippi State University forest land (Forestry School Forest and Delta Experimental Forest).

26. Study Description: Regeneration response to clearfelling in a redwater floodplain forest, Flint River, GA. Cooperative study examining stand and ecosystem-level responses of harvesting and road construction in a major river bottom floodplain forest. Treatments included a commercial clearcut and a "deferment" cut where residual trees were intentionally left in a silvicultural clearcut.
    Planned Completion Date: 2000
    SY Expensed in 1996: 0.1
    Planned Costs in 1996: $9,000
    Cooperative Aspects of Study: Done in cooperation with Auburn University (two MS studies), SRSO-4702 (road portion), and Georgia-Pacific Corp.

27. Regeneration response to clearfelling in a Delta bottomland forest. Internal study examining commercial and silvicultural clearcutting and a wildlife reserve cut (clearcut with residual trees in blocks), with and without fire to increase oak component of regeneration. Impacts of harvest and machinery on soils and surface water quality will be included. Study to be installed this fiscal year.
    Planned Completion Date: 2005
    SY Expended in 1996: 1.0
    Planned Costs in 1996: $40,000
    Cooperative Aspects: All cooperation is internal to project: 5 project scientists are involved in aspects of the study.

[f] other
1997 Planned Studies

1. Study description: Effects of landscape-scale logging on wildlife and other measures of biological diversity. This is a component of the Coastal Landscape Analysis and Modeling study (CLAMS). The objective is to determine how landscape-scale patterns of logging and other land-use activities influence distribution of selected vertebrate species and aggregate measures of ecosystem condition across a range of logging intensities. Models will be developed to project expected impacts of logging practices and different policies across a large landscape area.
   Planned completion date: December 1998
   Planned Scientist years expended for FY 1997: 2.0
   Planned costs for FY 1997: $500,000 (including cooperator support).
   Cooperative aspects of study: NBS, OSU, Coastal Oregon Productivity Enhancement (COPE) Program.

2. Study description: Long Term Ecosystem Productivity/Integrated Research Sites - This integrated study will provide managers, scientists, and the public with a better understanding of how several different strategies to manage forests and the ecological, social, and economic tradeoffs of those strategies. The core elements of the study link to the NFMA requirement to manage forests without impairing long term productivity. Forest health, fiber production, soil properties, public acceptance, plant communities and animal communities will be assessed on at least four large sites. Three sites have been sold as timber sales (approximately 30 million board feet) and post-harvest comparisons will begin this year (same as 1996 with increased emphasis on post-harvest comparisons as logging is completed).
   Planned completion date: 2196 (200 years)

Planned Scientist years expended for FY 1997: 4.5
Planned costs for FY 1997: $413,000 (salaries and operating expenses only; does not include overhead/fixed costs) or cooperator contributions.
Cooperative aspects of study: Cooperators include the National Forest System (3 research sites - Siskiyou, Willamette, Wenatchee National Forests, and personnel to assist in implementation), the US Environmental Protection Agency (carbon budgets), Oregon State University (organic matter, nutrient cycling, and soils portions of the study), University of Oregon (Scenic Perceptions of Different Ecological Treatments), Washington State Department of Natural Resources (1 research site in the Olympic State Experimental Forest) same as 1996, may have an additional cooperator (private timber company).

3. Study description: Rain-on-snow flood potential. A 100-year time series of daily rain-on-snow flood potential will be generated for the state of Oregon. The influence of vegetation on snow accumulation and melt will be added to the rain-on-snow flood potential algorithm to help determine the effects of harvest and other land-use (e.g., roads) on rain-on-snow flood potential.
Planned completion date: 6/97
Planned Scientist years expended for FY 1997: 1/4
Planned costs for FY 1997: $20,000
Cooperative aspects of study: The spatial and temporal variability of rain-on-snow flood potential will help determine the vulnerability of harvested areas and road systems to significant flood damage. In addition, the high rate of sediment transport associated with rain-on-snow floods affects fish habitat and alters stream channels.

4. Study description: Blow-down potential. A daily time series of blow-down potential will be generated for the state of Oregon. Soil condition, stand structure, fetch conditions, and branch-ice accumulations will be added to the blow-down potential algorithm to help determine the effects of harvest and other land-use (e.g., roads) on blow-down potential.
Planned completion date: 6/97
Planned Scientist years expended for FY 1997: 1/4
Planned costs for FY 1997: $20,000
Cooperative aspects of study: The spatial and temporal variability of blow-down potential will help determine the vulnerability of harvested areas and road systems to wind damage.

5. Study description: A study of green tree retention levels and patterns in western Oregon and Washington. This integrated study will provide managers, scientists, and the public with methods to evaluate how levels and patterns of green-tree retention following harvest activities influences ecological, social, and economic factors within the forest ecosystems. The core elements of the study link to key assumptions in the Northwest Forest Plan regarding the level and pattern of green-tree retention.
Planned completion date: 2004
Planned Scientist years expended for FY 1997: 2.5
Planned costs for FY 1997: $333,000
Cooperative aspects of study: Cooperators include the National Forest System, Oregon State University and University of Washington (vegetation, wildlife and fungi), University of Oregon (Scenic Perceptions of Different Ecological Treatments), Washington State Department of Natural Resources (1 research site)

6. Study description: "Effects of three thinning strategies on future disease losses in coastal Douglas-fir stands with extensive laminated root rot."
   Planned completion date: 2017
   Planned Scientist years expended for FY 1997: 0.5 SY
   Planned costs for FY 1997: PNW $50K; S&PF $88K; Cooperators $159.8K
   Cooperative aspects of study: 12 Private Companies; 1 State agency; 2 Federal agencies

7. Study description: "Impact of thinning on resulting blowdown in coastal Oregon stands with laminated root rot".
   Planned commpletion date: 2015
   Planned Scientist years expended for FY 1997: 0.2 SY
   Planned costs for FY 1997: PNW $20K; ODF $5K; Private cooperators $5K
   Cooperative aspects of study: 1 Private Company; 1 State Agency; Coastal Oregon Productivity Enhancement (COPE) Program.

8. Study description: "Impact of laminated root rot on growth and yield in thinned coastal Oregon Douglas-fir stands."
   Planned commpletion date: 2008
   Planned Scientist years expended for FY 1997: 0.2 SY
   Planned costs for FY 1997: PNW $120K; ODF $15K; private cooperators $20K
   Cooperative aspects of study: 14 Private Companies; 1 State agency; 2 Federal agencies

9. Study description: Landscape analysis of amphibian habitat requirements. This research will develop an understanding of the relation of amphibians to habitat types in Upper Great Lakes Region, requirements for reproductive habitat, influence of climate and landform on abundance of amphibians, and impacts of forest management.
   Planned completion date: 2001
   Planned Scientist years expended for FY 1997: 0.3 SY
   Planned costs for FY 1997: $5,000
   Cooperative aspects of study: Chippewa and Superior NFs, Minnesota DNR

10. Study description: Effect of calcium chloride on movements of amphibians. Study is a continuation of research begun in 1992 to determine whether the application of calcium chloride to gravel roads was causing mortality of salamanders.
    Planned completion date: 1997
    Planned Scientist years expended for FY 1997: 0.10 SY
    Planned costs for FY 1997: $10,000
    Cooperative aspects of study: Superior NF

11. Study description: Wood turtle habitat use on the Cloquet River. This research is a continuation of research begun in 1990 to determine whether forest management in the riparian zone was negatively affecting the abundance of wood turtles.
    Planned completion date: 1997
    Planned Scientist years expended for FY 1997: 0.30 SY
    Planned costs for FY 1997: $20,000
    Cooperative aspects of study: Minnesota DNR, Superior NF

12. Study description: "Development of standard methods of assessing

site impacts of forest operations".
Planned completion date: December 31, 1999
Planned scientists years for 1997: .25
Planned costs for 1997: $5,000
Cooperation: This is a portion of a FAO sponsored project on site impacts of forest operations.

13. Study description: "Prebunching to designated skid trails in a northern hardwood selection cut".
Planned completion date: December 31, 1998.
Planned scientists years for 1997: 1/2
Planned costs for 1997: $25,000
Cooperation: Menominee Tribal Enterprises, Region 9, Minnesota DNR.

14. Study description: "Development of soil quality standards, guidelines, and methods to measure and monitor soil properties that limit productivity of Lake States soils".
Planned completion date: December 31, 1998.
Planned scientists years for 1997: .5
Planned costs for 1997: $100,000
Cooperation: NC4301, National Forests in the Lake States, Region 9, and Michigan, Minnesota, and Wisconsin DNRs.

15. Study description: Composition, Structure, and Dynamics of Forest Ecosystems in the Missouri Ozark Forest Ecosystem Project. This study analyses pretreatment data for a long term study of the impacts of forest harvesting practices in the Missouri Ozarks.
Planned completion date: 1999
Planned scientist years expended for FY 97: 0.3
Planned Costs for FY 97: $100,000
Cooperative aspects of study: Cooperative project with the Missouri Department of Conservation, some funding received from the Missouri Department of Conservation.

16. Study description: Reproductive success of shrub nesting songbirds in regeneration habitats, shrublands, and forest edge habitats. Will compare the reproductive success of some shrub nesting songbirds in habitats created by logging to habitats created by natural disturbances.
Planned completion date: 2000
Planned scientist years expended for FY 97: 0.1
Planned Costs for FY 97: $25,000
Cooperative aspects of study: Research conducted through a cooperative research agreement with University of Missouri.

17. Study description: Uneven-aged management on the Mark Twain National Forest. This study assesses the response of woody vegetation to the application of the group-selection method of timber harvest in the Missouri Ozarks.
Planned completion date: 1998
Planned scientist years expended for FY 97: 0.2
Planned Costs for FY 97: $40,000
Cooperative aspects of study: This is an Administrative Study with the Mark Twain National Forest.

18. Study description: Effects of natural & management related disturbance regimes on composition & pattern of Central Hardwood landscapes. The study involves the development of a landscape-level simulation model to predict impacts of land-use

practices (including logging) and natural disturbances on central hardwood landscapes.
Planned completion date: 1998
Planned scientist years expended for FY 97: 0.8
Planned Costs for FY 97: $120,000
Cooperative aspects of study: University of Missouri

19. Study description: An analysis of the size and age structure of the Pioneer Forest. This study determines impacts on the selection method of timber harvest by analyzing long term records of one of the few forests practicing this method in the Midwest.
Planned completion date: 1997
Planned scientist years expended for FY 97: 0.5
Planned Costs for FY 97: $75,000
Cooperative aspects of study: Part of this research is conducted through two cooperative research agreements with University of Missouri.

Answer:

Summary of recent PNW Station/OSU research on effects of forest management activities on peak flows
Response to H 398 (part I) -- G. Grant (PNW)

Background: There has been a long history of looking at effects of harvest on peak streamflows with often contradictory results. Recent research by Julia Jones (Oregon State University) and Gordon Grant (U.S. Forest Service, Pacific Northwest Research Station, Corvallis) represents one of the most extensive examinations of this question using 40+ years of streamflow data in 2 pairs of small (25 - 250 acre) and 3 pairs of large (25 - 250 square mile) watersheds in the western Cascades of Oregon (Willamette National Forest). The paper describing their results was published in the April edition of Water Resources Research (vol 32, pgs. 959-974). An account of this research appeared in the March 8, 1996, Metro section of The Oregonian.

Key findings:

1. Effects of clearcutting and road construction taken together on peak flows may be greater than previously thought, with increases of 30 - 50% in peak flows of moderate storms with recurrence intervals of 1 to 100 years.

2. Both small and large watersheds showed approximately the same level of increase in peak flows for the same proportion of basin area clearcut and roaded.

    a. Small basins: Both the 100% clearcut and the 25% clearcut with 6% basin area in roads had 50% or more increases in peak flows for all sizes of storms in first 5 years post harvest; increased peak flows of 25% were still present 25 years later.

    b. Large basins: Increases of 24 to 32% in the 1-year flow for a 15% difference in cumulative area cut; increases of 34 to 50% in other basins with 5% difference in area cut.

3. Increasing cumulative area cut produced increased response with no evidence of a threshold below which no changes occurred.

4. Both rain alone and rain-on-snow storms caused the same degree of increase in peak flows, suggesting that acceleration of rain-on-snow effects due to clearcutting may be less important than previously thought.

5. In comparison of small watershed studies, a basin that was 100% clearcut without roads experienced approximately the same level of peak flow increase as a basin that was 25% patch cut with 6% basin area in roads. Roads alone increased peak flows by 20% but this result was not statistically significant.

6. Roads may play a critical role in routing water from clearcuts

rapidly to streams. Up to 60% of the road network may be functioning as a low-order (small) channel during storms, resulting in a 30-40% increase in drainage density and insuring that a higher proportion of storm precipitation and snowmelt reaches the stream system.

7. Sample size is too small to say anything about the largest storms (>10 year return period). Conventional hydrologic wisdom suggests that effects of timber harvest and roads diminishes for the largest events, and indeed the 10 largest storms in the small basin record showed little increase due to harvest.

8. The largest storm events have the most pronounced effects on stream channel structure, disturbance to stream and riparian ecosystems, and transport of sediment and woody debris. Events with return periods of 1 year or less generally do not do much geomorphic work in mountain streams.

Management implications:

a. Effects present in both small and large basins.

b. Previous procedures focused on rain-on-snow as driving mechanism; roads may play an important role.

c. No evidence for threshold below which no effect occurs.

d. Study inconclusive on hydrologic effects of management in the case of the largest storms.

e. Consequences for channels, aquatic resources not clearly understood...recent floods provide opportunity to learn.

Summary of on-going/planned work as a result of recent Northwest floods

Flooding during February 6-9, 1996, in the Pacific Northwest caused record peak flows, widespread landslides and mudflows, and extensive damage to channels, roads, and structures throughout the region. At the same time, the flood created many opportunities to learn how land management practices interact with natural disasters. Many state and federal agencies have initiated post-flood activities to evaluate flood effects and try to determine the extent to which historical and current land management activities may have influenced flood processes and damage. Below are summarized on-going or planned efforts that we are aware of, focusing on studies of interactions between forest practices and floods.

Studies at PNW Research Station (USFS): The PNW Research Station has a long history of research on effects of forest practices on floods, landslides, and related processes. Much of this work has been centered at the H.J. Andrews Experimental Forest (HJA) east of Eugene but also includes studies in the Oregon Coast Range, western Washington Cascades, Columbia Gorge, and southwest Oregon. Paired watershed studies at the Andrews have been continuing since the mid-1950's, providing multi-decade records of streamflow, sediment, and water chemistry responses to various management practices. Long-term monitoring of climate, mass movements, channels, riparian zones, and aquatic ecosystems have resulted in unparalleled datasets, providing strong scientific basis for examining effects of the most recent storm and comparing it with previous large floods.

Researchers from the PNW Station observed and videotaped the February flood at the Andrews, chronicling numerous landslides, debris flows and channel changes in both managed and unmanaged parts of the Forest. On-going and planned follow-up research activities at HJA include examining interactions among climate, land-use condition, and flood response for small and large watersheds, documenting links between hillslope and channel disturbance systems, including the importance of woody debris in augmenting flood disturbance, evaluating the role of clearcuts and roads in contributing to peak streamflows, and determining ecological consequences of the flood in different parts of the landscape. A draft manuscript describing some of this work is available at the HJA World Wide Web site (http://www.fsl.orst.edu/lter). Long-term landscape studies of other disturbance processes at the HJA, including fire and windstorms, permit placing flood effects within the larger context of disturbances affecting ecosystems.

Regional interagency flood studies: An interagency team including both National Forest System (NFS) and Bureau of Land Management (BLM) resource specialists, plus PNW Research was assembled shortly after the flood to assess flood effects on federal forest lands and guide inventory and research activities. A two-phase strategy was adopted. Phase I was a short-term, regional reconnaissance to identify the type and location of various flood effects and their association with management activities. Existing or rapid inventory data was relied on and results were to have been submitted to the NFS Regional Office by April 30, with analysis to follow within the next two weeks. Phase II will be a longer (6-7 month), more detailed look at the relation between management activities, including restoration practices, and flood effects in areas where pre-existing data on landslide, channel, and riparian conditions permit assessing effects of changing practices. Activities under Phase II will focus on broader management and policy questions, including the accuracy of watershed analyses for predicting high hazard areas, the effectiveness of watershed restoration efforts and new management prescriptions for reducing flood effects, and the importance of legacies of past and current management practices interacting with flood processes to produce flood effects.

Oregon Dept. of Forestry Flood Monitoring Program: This is an inter-agency post-flood monitoring and research effort, coordinated by the Oregon Dept. of Forestry (ODF). Representatives of other organizations, including private industry, USFS, BLM, Oregon State University, Oregon Dept. of Fish and Wildlife, land owners, and environmental groups, are also participating. The objective of this effort is to "evaluate the effectiveness of current forest practices in minimizing and mitigating the effects of the February storms." Specific areas of investigation include the effects of land management on streamflows, landslides, and channels, with a particular focus on how effective were current forest practice rules in reducing flood damage.

399. Question: What changes in management have been adopted in the last 3 years as a result of watershed studies?

Answer: The general intent of watershed analysis is to develop site specific criteria to meet standards and guidelines contained in the northwests's forest plans. An increased focus on watershed studies has resulted in some shifts in management. In general, we have increased our understanding of the importance and stewardship of streams and riparian areas and increased focus on riparian protection and restoration.

1. The region has identified and implemented over 150 watershed retoration projects, from road removal to the development of fish habitat.

2. Forests began implementing watershed-specific, ecosystem management recommnedations and practices on over 120 watersheds.

3. Project designs within or near riparian reserves and habitat conservation areas have been changed to incorporate watershed-specific findings.

400. Question: What problems have arisen as a result of the release of the Section 318 sales on the efforts to preserve salmon populations in the Pacific Northwest?

Answer: Section 318 timber sales that have been harvested were either:

1) Harvested prior to the Recission Bill or

2) Harvested in compliance with criteria developed for response to issues related to anadromous fish (for those harvested since the Recission Bill). The sales that did not meet these criteria were modified to do so.

These screening criteria are designed to protect aquatic and riparian resources. Units not harvested and "released" are sales with high priority to find replacement volume. We are currently assessing this in conjunction with the National Marine Fisheries Service. The final decision will be made by the National Marine Fisheries Service.

401. Question: What number of additional scientist years and dollars would help make management most effective? Describe the benefit of addressing issues that this budget won't cover.

Answer: The immediately preceding questions are specifically oriented toward research and management on watersheds and stream impacts. H-401 will be answered in this context. Recent years have seen a reprogramming of watershed research funds to higher priority aquatic habitat research and large scale watershed assessments. The watershed research program was investing about $19,000,000 in 1995. Since that time about half of the program has been diverted to higher priority issues. An additional $10,000,000 and about 40 SY's would enable Forest Service Research to address current and developing issues in the areas of (1) nutrient cycling and movement in watersheds related to pollution and plant growth, (2) erosion and sedimentation effects on the soil resource and stream habitats, (3) stream flow requirements for channel health and (4) management scale effects (cumulative effects) on watershed resources. These issues, their associated science, and development of appropriate predictive models can supply management with the tools it needs to be most effective. The benefits of this research will be seen in issues such as (1) riparian restoration techniques, (2) habitat protection for Pacific salmon, (3) litigating instream flow and hydropower requirements, (4) mitigating the effects of air pollution on water resources, and (5) methods of distributing forest management activities within large watershed basins to minimize detrimental effects. While the research might be beneficial, it would require offsetting reductions in other research activities that are equally beneficial.

TIMBER MORTALITY

When answering questions on National Forest timber program costs include all costs from decisions to make sales to certified regeneration, and payments to counties.

There has been considerable discussion about the level and effect of timber mortality as though the problem was concentrated on the National Forests.

402. Question: How many acres does the Forest Service list in its Plans as "Suitable For Timber Production"? What percentage of the commercially used forest land in the U. S. does this represent?

Answer: Currently, 49 million acres is classed as suitable for timber production. This is about 11 percent of U.S. forestlands commercially available for timber production.

403. Question: How do the National Forests stack up, when compared to private forests? Show by Survey regions, 1952 and 1992, for Softwoods [a] Acres, [b] Inventory, [c] Growth, [d] Removals, [e] Growth-Removal surplus or deficit, and [f] Mortality. Show the total in board feet or cubic feet, the per acre amount, and Growth, Removal and Mortality as a percent of each Softwood inventory.

Answer: See the accompanying tables dated 8/11/94, from the Forest Service publication RM-234, entitled Forest Resources of the United States, 1992, which provides most of the requested information. The per acre amounts and percents of growth, removal, and mortality compared to softwood can be calculated from the data.

404. Question: Show how these two ownerships compare in growth potential

United States

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992

(Compiled by W.B Smith USDA Forest Service 7/94)

Owner/	1000x	Softwoods				Hardwoods				All species				Per acre summary				Pct of Inventory		
Year	Acres	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Gro.	Mor.	Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	94,707	204,437	1,663	1,213	1,032	13,556	395	90.6	117	217,993	2,058	1,304	1,149	**2,302**	**22**	**14**	**12**	.94	.60	.53
1962	96,845	213,696	2,000	1,258	1,747	17,207	509	116.6	127	230,903	2,509	1,375	1,874	**2,384**	**26**	**14**	**19**	1.09	.60	.81
1977	88,701	208,099	2,466	893	2,021	21,567	658	114.5	143	229,666	3,126	1,008	2,164	**2,589**	**35**	**11**	**24**	1.36	.44	.94
1987	85,211	186,313	2,785	912	2,060	25,106	617	141.4	162	211,419	3,402	1,053	2,222	**2,481**	**40**	**12**	**26**	1.61	.50	1.05
1992	84,661	185,575	2,748	999	1,781	25,642	544	200.6	220	211,217	3,292	1,200	2,001	**2,495**	**39**	**14**	**24**	1.56	.57	.95
Other public																				
1952	50,732	55,187	730	386	431	16,516	492	107	140	71,703	1,222	493	571	**1,413**	**24**	**10**	**11**	1.70	.69	.80
1962	49,315	55,723	960	381	567	20,720	633	151	146	76,443	1,593	532	713	**1,550**	**32**	**11**	**14**	2.08	.70	.93
1977	49,469	59,042	1,190	381	847	26,460	840	199	224	85,502	2,030	580	1,071	**1,728**	**41**	**12**	**22**	2.37	.68	1.25
1987	45,815	57,258	1,370	289	858	31,379	979	209	220	88,637	2,349	498	1,078	**1,935**	**51**	**11**	**24**	2.65	.56	1.22
1992	46,833	50,004	1,130	290	658	32,977	834	278	326	82,981	1,964	568	984	**1,772**	**42**	**12**	**21**	2.37	.68	1.19
Forest industry																				
1952	58,979	77,421	1,872	460	2,765	20,330	689	154	521	97,751	2,561	614	3,286	**1,657**	**43**	**10**	**56**	2.62	.63	3.36
1962	61,434	76,071	2,326	458	2,301	25,384	829	206	657	101,455	3,155	664	2,958	**1,651**	**51**	**11**	**48**	3.11	.65	2.92
1977	68,936	74,497	2,947	394	3,652	32,287	1,222	218	592	106,784	4,169	612	4,244	**1,549**	**60**	**9**	**62**	3.90	.57	3.97
1987	70,347	72,752	3,152	397	4,215	35,311	1,129	227	811	108,063	4,281	624	5,026	**1,536**	**61**	**9**	**71**	3.96	.58	4.65
1992	70,455	70,957	3,190	493	4,113	34,806	1,099	276	1,212	105,763	4,289	769	5,325	**1,501**	**61**	**11**	**76**	4.06	.73	5.03
Other private																				
1952	304,439	94,749	3,646	602	3,537	133,688	4599.6	891.4	3,317	228,437	8,246	1,493	6,854	**750**	**27**	**5**	**23**	3.61	.65	3.00
1962	307,527	104,270	4,516	670	3,002	152,529	5124.6	1091.5	3,407	256,799	9,641	1,762	6,409	**835**	**31**	**6**	**21**	3.75	.69	2.50
1977	285,250	125,322	6,090	798	3,527	185,782	6708.0	1096.1	3,316	311,104	12,798	1,894	6,843	**1,091**	**45**	**7**	**24**	4.11	.61	2.20
1987	283,564	136,591	5,430	946	4,233	220,829	6,820	1,282	3,891	357,420	12,250	2,228	8,124	**1,260**	**43**	**8**	**29**	3.43	.62	2.27
1992	287,607	143,360	5,122	1,211	4,402	242,299	7,157	1,736	3,594	385,659	12,279	2,947	7,996	**1,341**	**43**	**10**	**28**	3.18	.76	2.07
All owners																				
1952	508,857	431,794	7,911	2,661	7,765	184,090	6,175	1,243	4,096	615,884	14,086	3,904	11,861	**1,210**	**28**	**8**	**23**	2.29	.63	1.93
1962	515,121	449,760	9,802	2,767	7,617	215,840	7,096	1,565	4,338	665,600	16,898	4,332	11,955	**1,292**	**33**	**8**	**23**	2.54	.65	1.80
1977	492,356	466,960	12,695	2,466	10,047	266,096	9,428	1,628	4,275	733,056	22,123	4,094	14,322	**1,489**	**45**	**8**	**29**	3.02	.56	1.95
1987	484,937	452,914	12,737	2,544	11,366	312,625	9,545	1,860	5,084	765,539	22,282	4,404	16,450	**1,579**	**46**	**9**	**34**	2.91	.58	2.15
1992	489,556	449,896	12,190	2,993	10,954	335,724	9,634	2,490	5,352	785,620	21,824	5,483	16,306	**1,605**	**45**	**11**	**33**	2.78	.70	2.08

North RPA Region

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992

(Compiled by W.B. Smith USDA Forest Service 7/94)

Owner/ Year	1000x Acres	Softwoods Volume	Softwoods Gro.	Softwoods Mor.	Softwoods Rem.	Hardwoods Volume	Hardwoods Gro.	Hardwoods Mor.	Hardwoods Rem.	All species Volume	All species Gro.	All species Mor.	All species Rem.	Per acre summary Volume	Per acre summary Gro.	Per acre summary Mor.	Per acre summary Rem.	Pct of Inventory Gro.	Pct of Inventory Mor.	Pct of Inventory Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	9,833	1,795	70	20	24	4,465	181	28	41	6,260	251	48	65	**637**	**26**	**5**	**7**	4.01	.77	1.04
1962	9,776	2,520	89	28	34	6,071	229	42	48	8,591	318	70	82	**879**	**33**	**7**	**8**	3.70	.81	.95
1977	9,243	3,178	116	23	43	8,232	276	47	92	11,410	392	70	135	**1,234**	**42**	**8**	**15**	3.44	.61	1.18
1987	9,456	3,948	137	25	31	9,544	285	60	66	13,492	422	85	97	**1,427**	**45**	**9**	**10**	3.13	.63	.72
1992	9,545	3,939	101	39	46	8,940	211	71	98	12,879	312	110	144	**1,349**	**33**	**12**	**15**	2.42	.85	1.12
Other public																				
1952	19,297	3,047	119	27	44	8,386	355	61	70	11,433	474	88	114	**592**	**25**	**5**	**6**	4.15	.77	1.00
1962	18,649	3,987	152	41	44	11,457	451	94	86	15,444	603	135	130	**828**	**32**	**7**	**7**	3.90	.87	.84
1977	19,324	5,283	191	47	61	14,821	542	136	126	20,104	733	183	187	**1,040**	**38**	**9**	**10**	3.65	.91	.93
1987	20,510	7,336	222	56	49	19,222	606	139	102	26,558	828	195	151	**1,295**	**40**	**10**	**7**	3.12	.73	.57
1992	20,761	7,251	186	69	71	19,526	470	180	224	26,777	656	249	295	**1,290**	**32**	**12**	**14**	2.45	.93	1.10
Forest industry																				
1952	13,721	6,163	222	46	139	6,790	228	44	121	12,953	450	90	260	**944**	**33**	**7**	**19**	3.47	.69	2.01
1962	13,688	7,741	280	63	115	8,227	256	62	95	15,968	536	125	210	**1,167**	**39**	**9**	**15**	3.36	.78	1.32
1977	17,453	12,514	432	88	215	11,012	345	88	199	23,526	777	176	414	**1,348**	**45**	**10**	**24**	3.30	.75	1.76
1987	16,936	10,844	239	108	310	12,265	335	69	251	23,109	574	177	561	**1,364**	**34**	**10**	**33**	2.48	.77	2.43
1992	16,198	11,272	230	118	348	12,710	322	77	375	23,982	552	195	723	**1,481**	**34**	**12**	**45**	2.30	.81	3.01
Other private																				
1952	111,424	16,048	561	123	420	57,054	1,979	341	1,079	73,102	2,540	464	1,499	**656**	**23**	**4**	**13**	3.47	.63	2.05
1962	114,494	19,413	690	161	337	68,872	2,276	448	1,135	88,285	2,966	609	1,472	**771**	**26**	**5**	**13**	3.36	.69	1.67
1977	107,426	22,875	819	166	382	85,093	2,628	553	1,431	107,968	3,447	719	1,813	**1,005**	**32**	**7**	**17**	3.19	.67	1.68
1987	107,517	25,490	691	178	334	101,389	2,997	607	1,564	126,879	3,688	785	1,898	**1,180**	**34**	**7**	**18**	2.91	.62	1.50
1992	111,294	28,514	696	222	276	114,967	3,145	794	1,348	143,481	3,841	1,016	1,624	**1,289**	**35**	**9**	**15**	2.68	.71	1.13
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
All owners																				
1952	154,275	27,053	972	216	627	76,695	2,743	474	1,311	103,748	3,715	690	1,938	**672**	**24**	**4**	**13**	3.58	.67	1.87
1962	156,607	33,661	1,211	293	530	94,627	3,212	646	1,364	128,288	4,423	939	1,894	**819**	**28**	**6**	**12**	3.45	.73	1.48
1977	153,446	43,850	1,558	324	701	119,158	3,791	824	1,848	163,008	5,349	1,148	2,549	**1,062**	**35**	**7**	**17**	3.28	.70	1.56
1987	154,419	47,618	1,289	367	724	139,640	4,223	875	1,983	187,258	5,512	1,242	2,707	**1,213**	**36**	**8**	**18**	2.94	.66	1.45
1992	157,798	50,976	1,213	448	741	158,142	4,148	1,122	2,045	209,118	5,361	1,570	2,786	**1,325**	**34**	**10**	**18**	2.56	.75	1.33

South RPA Region

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992

(Compiled by W.B. Smith USDA Forest Service 7/94)

Owner/ Year	1000x Acres	Softwoods				Hardwoods				All species				Per acre summary				Pct of Inventory		
		Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Gro.	Mor.	Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	10,824	5,197	292	24	160	4,569	140	31	70	9,766	432	55	230	**902**	**40**	**5**	**21**	4.42	56	2.36
1962	11,149	7,117	426	29	121	6,128	198	39	68	13,245	624	68	189	**1,188**	**56**	**6**	**17**	4.71	.51	1.43
1977	11,496	8,616	382	41	272	8,255	285	39	46	16,871	667	80	318	**1,468**	**58**	**7**	**28**	3.95	.47	1.88
1987	11,764	9,314	325	60	247	10,005	274	54	49	19,319	599	114	296	**1,642**	**51**	**10**	**25**	3.10	.59	1.53
1992	11,554	8,839	225	114	277	10,524	262	91	96	19,363	487	205	373	**1,676**	**42**	**18**	**32**	2.52	1.06	1.93
Other public																				
1952	6,620	2,364	126	14	95	2,210	82	15	64	4,574	208	29	159	**691**	**31**	**4**	**24**	4.55	.63	3.48
1962	6,657	2,913	142	20	77	2,905	103	22	55	5,818	245	42	132	**874**	**37**	**6**	**20**	4.21	.72	2.27
1977	6,941	4,110	220	26	122	4,393	180	31	77	8,503	400	57	199	**1,225**	**58**	**8**	**29**	4.70	.67	2.34
1987	8,160	5,097	202	38	194	6,313	187	44	97	11,410	389	82	291	**1,398**	**48**	**10**	**36**	3.41	.72	2.55
1992	8,948	5,641	184	53	125	7,911	216	63	79	13,552	400	116	204	**1,515**	**45**	**13**	**23**	2.95	.86	1.51
Forest industry																				
1952	31,795	16,541	1,082	83	818	11,244	374	95	379	27,785	1,456	178	1,197	**874**	**46**	**6**	**38**	5.24	.64	4.31
1962	33,635	20,896	1,382	102	603	13,973	459	124	534	34,869	1,841	226	1,137	**1,037**	**55**	**7**	**34**	5.28	.65	3.26
1977	36,860	23,572	1,582	129	1,408	17,203	712	102	345	40,775	2,294	231	1,753	**1,106**	**62**	**6**	**48**	5.63	.57	4.30
1987	37,988	24,232	1,554	157	1,910	17,751	593	129	507	41,983	2,147	286	2,417	**1,105**	**57**	**8**	**64**	5.11	.68	5.76
1992	39,025	24,056	1,684	190	2,141	16,953	611	154	766	41,009	2,295	344	2,907	**1,051**	**59**	**9**	**74**	5.60	.84	7.09
Other private																				
1952	155,308	36,360	2,141	212	2,043	69,985	2,445	499	2,205	106,345	4,586	711	4,248	**685**	**30**	**5**	**27**	4.31	.67	3.99
1962	157,262	44,161	2,749	248	2,015	75,979	2,634	586	2,216	120,140	5,383	834	4,231	**764**	**34**	**5**	**27**	4.48	.69	3.52
1977	144,335	64,910	4,130	437	2,673	92,314	3,832	474	1,809	157,224	7,962	911	4,482	**1,089**	**55**	**6**	**31**	5.06	.58	2.85
1987	139,357	66,970	3,418	586	3,390	104,958	3,433	605	2,305	171,928	6,851	1,191	5,695	**1,234**	**49**	**9**	**41**	3.98	.69	3.31
1992	139,782	64,391	3,007	709	3,275	112,279	3,643	832	2,193	176,670	6,650	1,541	5,468	**1,264**	**48**	**11**	**39**	3.76	.87	3.10
[illegible]																				
All owners																				
1952	204,547	60,462	3,641	333	3,116	88,008	3,041	640	2,718	148,470	6,682	973	5,834	**726**	**33**	**5**	**29**	4.50	.66	3.93
1962	208,703	75,087	4,699	399	2,816	98,985	3,394	771	2,873	174,072	8,093	1,170	5,689	**834**	**39**	**6**	**27**	4.65	.67	3.27
1977	199,632	101,208	6,314	633	4,475	122,165	5,009	646	2,277	223,373	11,323	1,279	6,752	**1,119**	**57**	**6**	**34**	5.07	.57	3.02
1987	197,269	105,613	5,499	841	5,741	139,027	4,487	832	2,958	244,640	9,986	1,673	8,699	**1,240**	**51**	**8**	**44**	4.08	.68	3.56
1992	199,309	102,927	5,100	1,066	5,818	147,667	4,732	1,140	3,134	250,594	9,832	2,206	8,952	**1,257**	**49**	**11**	**45**	3.92	.88	3.57

Rocky Mountain RPA Region

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992 *(Compiled by W.B. Smith USDA Forest Service 7/94)*

Owner/ Year	1000x Acres	Softwoods Volume	Softwoods Gro.	Softwoods Mor.	Softwoods Rem.	Hardwoods Volume	Hardwoods Gro.	Hardwoods Mor.	Hardwoods Rem.	All species Volume	All species Gro.	All species Mor.	All species Rem.	Per acre summary Volume	Per acre summary Gro.	Per acre summary Mor.	Per acre summary Rem.	Pct of Inventory Gro.	Pct of Inventory Mor.	Pct of Inventory Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	41,914	58,013	688	391	229	2,154	31	17	2	60,167	719	408	231	**1,435**	**17**	**10**	**6**	1.20	.68	.38
1962	42,515	62,979	776	422	412	2,458	37	20	3	65,437	813	442	415	**1,539**	**19**	**10**	**10**	1.24	.68	.63
1977	36,465	65,081	1,044	274	463	2,672	66	18	3	67,753	1,110	292	466	**1,858**	**30**	**8**	**13**	1.64	.43	.69
1987	35,762	70,832	1,297	370	468	3,212	57	22	8	74,044	1,354	392	476	**2,070**	**38**	**11**	**13**	1.83	.53	.64
1992	36,402	71,657	1,285	428	395	3,785	67	35	10	75,442	1,352	463	405	**2,072**	**37**	**13**	**11**	1.79	.61	.54
Other public																				
1952	4,541	9,923	119	66	79	566	8	9	0.3	10,489	127	75	79	**2,310**	**28**	**17**	**17**	1.21	.72	.76
1962	4,522	10,147	141	66	86	624	9	10	0.4	10,771	150	76	86	**2,382**	**33**	**17**	**19**	1.39	.71	.80
1977	4,152	10,429	161	67	93	682	10	11	0.1	11,111	171	78	93	**2,676**	**41**	**19**	**22**	1.54	.70	.84
1987	5,633	11,094	220	51	76	974	27	5	2.0	12,068	247	56	78	**2,142**	**44**	**10**	**14**	2.05	.46	.65
1992	5,987	8,352	171	50	56	689	17	4	0.9	9,041	188	54	57	**1,510**	**31**	**9**	**10**	2.08	.60	.63
Forest industry																				
1952	2,250	6,749	79	22	99	60	0.7	0.4	0.1	6,809	80	22	99	**3,026**	**35**	**10**	**44**	1.17	.33	1.46
1962	2,240	6,424	92	23	130	60	0.9	0.5	0.1	6,484	93	24	130	**2,895**	**41**	**10**	**58**	1.43	.36	2.01
1977	2,095	5,127	104	22	177	38	0.9	0.4	0.1	5,165	105	22	177	**2,465**	**50**	**11**	**85**	2.03	.43	3.43
1987	2,964	5,343	125	28	159	33	1.0	0.0	5.0	5,376	126	28	164	**1,814**	**43**	**9**	**55**	2.34	.52	3.05
1992	2,918	4,815	127	42	172	33	0.7	0.2	1.0	4,848	128	42	173	**1,661**	**44**	**14**	**59**	2.63	.87	3.57
Other private																				
1952	17,895	12,861	214	89	127	2,294	47	32	21	15,155	261	121	148	**847**	**15**	**7**	**8**	[illegible]	.80	.97
1962	17,645	13,673	249	91	110	2,454	52	34	20	16,127	301	125	130	**914**	**17**	**7**	**7**	1.87	.78	.80
1977	17,460	14,474	284	95	110	2,746	61	39	21	17,220	345	134	131	**986**	**20**	**8**	**7**	2.00	.78	.76
1987	16,781	13,029	315	46	140	3,462	84	24	13	16,491	399	70	153	**983**	**24**	**4**	**9**	2.42	.42	.93
1992	17,322	16,663	402	85	174	4,245	102	44	18	20,908	504	129	192	**1,207**	**29**	**7**	**11**	2.41	62	.92
All owners																				
1952	66,600	87,546	1,100	568	534	5,074	87	58	23	92,620	1,187	626	557	**1,391**	**18**	**9**	**8**	1.28	68	.60
1962	66,922	93,223	1,258	602	738	5,596	99	65	23	98,819	1,357	667	761	**1,477**	**20**	**10**	**11**	1.37	.67	.77
1977	60,172	95,111	1,593	458	843	6,138	138	68	24	101,249	1,731	526	867	**1,683**	**29**	**9**	**14**	1.71	.52	.86
1987	61,140	100,298	1,957	495	843	7,681	169	51	28	107,979	2,126	546	871	**1,766**	**35**	**9**	[illegible]	[illegible]	.51	.81
1992	62,629	101,487	1,985	605	797	8,752	187	83	30	110,239	2,172	688	827	**1,760**	**35**	**11**	**13**	1.97	.62	.75

8/11/94

Pacific Northwest RPA Region

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992 *(Compiled by W.B. Smith USDA Forest Service 7/94)*

Owner/ Year	1000x Acres	Softwoods				Hardwoods				All species				Per acre summary				Pct of Inventory		
		Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Gro.	Mor.	Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	16,891	70,992	441	407	485	844	14	6	0.3	71,836	455	413	485	**4,253**	**27**	**24**	**29**	.63	.57	.68
1962	17,659	73,461	507	417	823	1,016	15	7	1.4	74,477	522	424	824	**4,218**	**30**	**24**	**47**	.70	.57	1.11
1977	16,800	67,737	539	327	838	1,038	15	7	0.6	68,775	554	334	839	**4,094**	**33**	**20**	**50**	.81	.49	1.22
1987	15,011	50,938	589	186	926	15	0.4	0.2	33	50,953	589	186	959	**3,394**	**39**	**12**	**64**	1.16	.37	1.88
1992	15,010	50,959	589	186	597	17	0.4	0.2	8	50,976	589	186	605	**3,396**	**39**	**12**	**40**	1.16	.37	1.19
Other public																				
1952	6,006	27,877	259	210	207	1,135	34	14	5	29,012	293	224	212	**4,831**	**49**	**37**	**35**	1.01	.77	.73
1962	5,692	26,323	404	185	338	1,584	58	17	3	27,907	462	202	341	**4,903**	**81**	**35**	**60**	1.66	.72	1.22
1977	5,591	25,909	467	172	535	2,322	93	12	15	28,231	560	184	550	**5,049**	**100**	**33**	**98**	1.98	.65	1.95
1987	5,656	26,603	634	113	521	2,443	88	13	14	29,046	722	126	535	**5,135**	**128**	**22**	**95**	2.49	.43	1.84
1992	5,281	22,039	497	90	388	2,572	63	23	20	24,611	560	113	408	**4,660**	**106**	**21**	**77**	2.28	.46	1.66
Forest industry																				
1952	9,046	36,700	399	255	1,253	1,900	75	13	18	38,600	474	268	1,271	**4,267**	**52**	**30**	**141**	1.23	.69	3.29
1962	9,426	31,371	464	222	1,004	2,675	98	18	24	34,046	562	240	1,028	**3,612**	**60**	**25**	**109**	1.65	.70	3.02
1977	9,841	25,827	691	134	1,464	3,355	145	26	44	29,182	836	160	1,508	**2,965**	**85**	**16**	**153**	2.86	.55	5.17
1987	9,702	24,415	1,029	74	1,401	3,888	154	24	44	28,303	1,183	98	1,445	**2,917**	**122**	**10**	**149**	4.18	.35	5.11
1992	9,034	21,763	905	108	1,051	3,476	111	38	59	25,239	1,016	146	1,110	**2,794**	**112**	**16**	**123**	4.03	.58	4.40
Other private																				
1952	12,933	14,005	374	80	405	3,197	99	18	9	17,202	473	98	414	**1,330**	**37**	**8**	**32**	2.75	.57	2.40
1962	11,706	13,839	444	82	269	3,972	131	22	30	17,811	575	104	299	**1,522**	**49**	**9**	**26**	3.23	.58	1.68
1977	9,901	13,062	462	66	265	3,807	148	28	46	16,869	610	94	311	**1,704**	**62**	**9**	**31**	3.62	.56	1.85
1987	8,565	14,067	531	48	273	5,202	190	31	7	19,269	721	79	280	**2,250**	**84**	**9**	**33**	3.74	.41	1.45
1992	8,527	18,466	575	109	441	5,350	164	51	29	23,816	739	160	470	**2,793**	**87**	**19**	**55**	3.10	.67	1.97
[illegible]																				
All owners																				
1952	44,876	149,574	1,473	952	2,350	7,076	222	51	32	156,650	1,695	1,003	2,382	**3,491**	**38**	**22**	**53**	1.08	.64	1.52
1962	44,483	144,994	1,819	906	2,434	9,247	302	64	58	154,241	2,121	970	2,492	**3,467**	**48**	**22**	**56**	1.38	.63	1.62
1977	42,133	132,535	2,159	699	3,102	10,522	401	73	106	143,057	2,560	772	3,208	**3,395**	**61**	**18**	**76**	1.79	.54	2.24
1987	38,934	116,023	2,783	421	3,121	11,548	432	68	98	127,571	3,215	489	3,219	**3,277**	**83**	**13**	**83**	2.52	.38	2.52
1992	37,852	113,227	2,566	493	2,477	11,415	338	112	116	124,642	2,904	605	2,593	**3,293**	**77**	**16**	**69**	2.33	.49	2.08

Pacific Southwest RPA Region

Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992

(Compiled by W.B. Smith USDA Forest Service 7/94)

Owner/ Year	1000x Acres	Softwoods Volume	Softwoods Gro.	Softwoods Mor.	Softwoods Rem.	Hardwoods Volume	Hardwoods Gro.	Hardwoods Mor.	Hardwoods Rem.	All species Volume	All species Gro.	All species Mor.	All species Rem.	Per acre summary Volume	Per acre summary Gro.	Per acre summary Mor.	Per acre summary Rem.	Pct of Inventory Gro.	Pct of Inventory Mor.	Pct of Inventory Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	8,372	29,590	162	200	117	1,276	29	7	4	30,866	191	207	121	**3,687**	**23**	**25**	**14**	.62	.67	.39
1962	8,918	29,391	186	198	263	1,286	30	7	7	30,677	216	205	270	**3,440**	**24**	**23**	**30**	.70	.67	.88
1977	8,168	28,073	364	81	306	1,133	16	2	1	29,206	380	83	307	**3,576**	**47**	**10**	**38**	1.30	.28	1.05
1987	8,742	27,213	422	171	334	2,184	0	5	6	29,397	422	176	340	**3,363**	**48**	**20**	**39**	1.44	.60	1.16
1992	8,370	31,448	463	108	367	2,200	0	3	8	33,648	463	111	375	**4,020**	**55**	**13**	**45**	1.38	.33	1.11
Other public																				
1952	1,055	1,895	14	16	5	317	6	0.3	1.0	2,212	20	16	6	**2,097**	**19**	**15**	**6**	.90	.74	.27
1962	894	1,438	14	12	18	289	5	0.3	2.0	1,727	19	12	20	**1,932**	**21**	**14**	**22**	1.10	.71	1.16
1977	826	1,111	14	5	29	378	8	0.9	3.0	1,489	22	6	32	**1,803**	**27**	**7**	**39**	1.48	.40	2.15
1987	754	1,248	25	6	15	676	16	2.4	0.2	1,924	41	8	15	**2,552**	**54**	**11**	**20**	2.13	.44	.79
1992	754	956	24	4	15	528	13	1.9	0.3	1,484	37	6	15	**1,968**	**49**	**8**	**20**	2.49	.40	1.03
Forest industry																				
1952	2,167	11,268	90	54	456	336	11	1.1	3	11,604	101	55	459	**5,355**	**47**	**25**	**212**	.87	.47	3.96
1962	2,445	9,639	108	48	449	449	15	1.5	4	10,088	123	50	453	**4,126**	**50**	**20**	**185**	1.22	.49	4.49
1977	2,687	7,457	138	21	388	679	19	1.7	4	8,136	157	23	392	**3,028**	**58**	**8**	**146**	1.93	.28	4.82
1987	2,757	7,918	205	30	435	1,374	46	5.3	4	9,292	251	35	439	**3,370**	**91**	**13**	**159**	2.70	.38	4.72
1992	3,280	9,051	244	35	401	1,634	54	6.3	11	10,685	298	41	412	**3,258**	**91**	**13**	**126**	2.79	.39	3.86
Other private																				
1952	6,622	15,257	178	97	542	1,119	29	1.3	4	16,376	207	98	546	**2,473**	**31**	**15**	**82**	1.26	.60	3.33
1962	6,030	12,901	192	87	271	1,170	30	1.4	7	14,071	222	88	278	**2,333**	**37**	**15**	**46**	1.58	.63	1.98
1977	5,570	9,338	197	31	95	1,701	36	1.9	9	11,039	233	33	104	**1,982**	**42**	**6**	**19**	2.11	.30	.94
1987	5,159	9,932	238	41	35	3,506	95	11	2	13,438	333	52	37	**2,605**	**65**	**10**	**7**	2.48	.39	.27
1992	4,497	8,680	205	37	103	3,146	84	11	3	11,826	289	48	106	**2,630**	**64**	**11**	**24**	2.44	.40	.89
All owners																				
1952	18,216	58,010	444	367	1,120	3,048	75	10	12	61,058	519	377	1,132	**3,352**	**28**	**21**	**62**	.85	.62	1.85
1962	18,287	53,369	500	345	1,001	3,194	80	10	20	56,563	580	355	1,021	**3,093**	**32**	**19**	**56**	1.03	.63	1.81
1977	17,251	45,979	713	138	818	3,891	79	7	17	49,870	792	145	835	**2,891**	**46**	**8**	**48**	1.59	.29	1.67
1987	17,412	46,311	890	248	819	7,740	157	24	12	54,051	1,047	272	831	**3,104**	**60**	**16**	**48**	1.94	.50	1.54
1992	16,901	50,135	936	184	886	7,508	151	22	22	57,643	1,087	206	908	**3,411**	**64**	**12**	**54**	1.89	.36	1.58

Alaska RPA Region

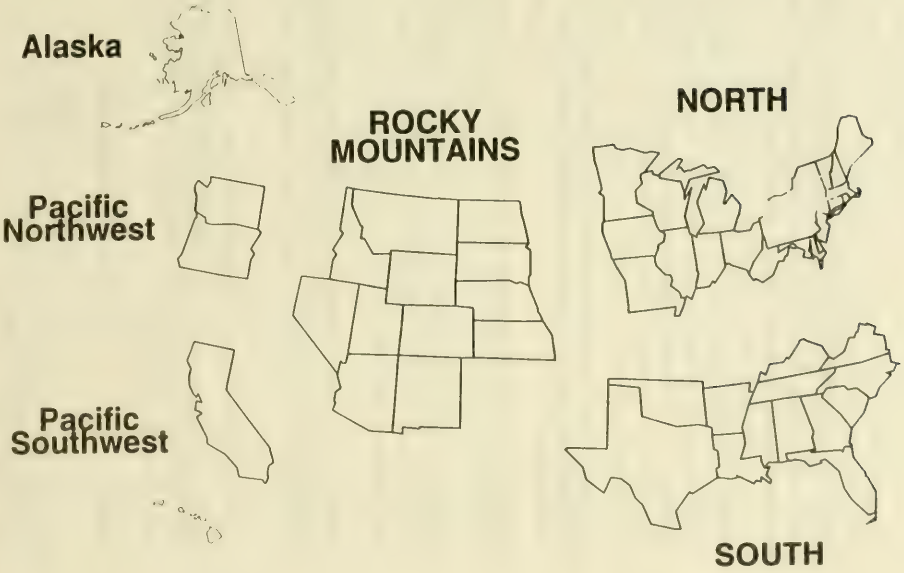
Timberland & Growing Stock Summary

SOURCE: Forest Resources of the United States, 1992

(Compiled by W.B. Smith USDA Forest Service 7/94)

Owner/	1000x	Softwoods				Hardwoods				All species				Per acre summary				Pct of Inventory		
Year	Acres	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Volume	Gro.	Mor.	Rem.	Gro.	Mor.	Rem.
		(Million cubic feet)				*(Million cubic feet)*				*(Million cubic feet)*				*(Cubic feet per acre)*				*(Percent)*		
National Forest																				
1952	6,873	38,850	10	171	17	248	0	1.6	0	39,098	10	173	17	5,689	1	25	2	.03	.44	.04
1962	6,828	38,228	16	164	94	248	0	1.6	0	38,476	16	166	94	5,635	2	24	14	.04	.43	.24
1977	6,529	35,414	23	147	99	237	0	1.5	0	35,651	23	149	99	5,460	4	23	15	.06	.42	.28
1987	4,476	24,068	15	100	54	146	1	0.2	0.1	24,214	16	100	54	5,410	4	22	12	.07	.41	.22
1992	3,780	18,733	85	124	99	176	4	0.4	0	18,909	89	124	99	5,002	24	33	26	.47	66	52
Other public																				
1952	13,213	10,081	93	53	1	3,902	7	8	0	13,983	100	61	1	1,058	8	5	0	.72	.44	.01
1962	12,901	10,915	107	57	4	3,861	7	8	0	14,776	114	65	4	1,145	9	5	0	.77	.44	.03
1977	12,635	12,200	137	64	7	3,864	7	8	3	16,064	144	72	10	1,271	11	6	1	.90	.45	.06
1987	5,102	5,880	67	25	3	1,751	55	6	5	7,631	122	31	8	1,496	24	6	2	1.60	.41	.10
1992	5,102	5,765	68	24	3	1,751	55	6	2	7,516	123	30	5	1,473	24	6	1	1.64	.40	.07
Forest industry																				
1952	0	0	0	0	0	0	0	0	0	0	0	0	0							
1962	0	0	0	0	0	0	0	0	0	0	0	0	0							
1977	0	0	0	0	0	0	0	0	0	0	0	0	0							
1987	0	0	0	0	0	0	0	0	0	0	0	0	0							
1992	0	0	0	0	0	0	0	0	0	0	0	0	0							
Other private																				
1952	257	218	178	1	0	39	0.6	0.1	0	257	179	1	0	1,000	695	4	0	69.49	.43	.00
1962	390	283	192	1	0	82	1.6	0.1	0	365	194	1	0	936	496	3	0	53.04	.30	.00
1977	558	663	198	3	2	121	3.0	0.2	0	784	201	3	2	1,405	360	6	4	25.64	.41	.26
1987	6,185	7,103	237	47	61	2,312	21	4	0.1	9,415	258	51	61	1,522	42	8	10	2.74	.54	.65
1992	6,185	6,646	237	49	133	2,312	19	4	3	8,958	256	53	136	1,448	41	9	22	2.86	.59	1.52
All owners																				
1952	20,343	49,149	281	225	18	4,189	8	10	0	53,338	289	235	18	2,622	14	12	1	.54	.44	.03
1962	20,119	49,426	315	222	98	4,191	9	10	0	53,617	324	232	98	2,665	16	12	5	.60	.43	.18
1977	19,722	48,277	358	214	108	4,222	10	10	3	52,499	368	224	111	2,662	19	11	6	.70	.43	.21
1987	15,763	37,051	319	172	118	4,209	77	10	5	41,260	396	182	123	2,618	25	12	8	.96	.44	.30
1992	15,067	31,144	390	197	235	4,239	78	10	5	35,383	468	207	240	2,348	31	14	16	1.32	.59	.68

MAJOR RPA GEOGRAPHIC REGIONS



and amount of industrially preferred softwoods on their land? Which regions and which ownerships are in the best and poorest condition? Are there special considerations that need to be considered based on the location of most of the land each ownership holds?

Answer: Forest Resources of the United States, 1992, shows that the National Forests contain about 18 percent of the productive forestland in the U.S. This resource provides 41 percent of the volume of industrially preferred softwood timber, and 47 percent of the softwood sawtimber in the country. We do not have information that would allow us to summarize the condition by region of the national forests and private lands.

405. Question: Referring to the total mortality and mortality per acre, and to the costs associated with timber removal, what percentage of the annual mortality is likely to be financially feasible to remove? How does this translate into a volume amount?

Answer: Mortality on National Forest lands available for timber production is estimated to be about 0.7 billion cubic feet or about 3.5 billion board feet (bbf). Of this amount, about 1.4 bbf is planned to be offered as salvage in FY 1997 by the Forest Service. This is also the amount that is practically and financially feasible to produce.

406. Question: Has any benchmark level been developed based on the species and location that helps define when the level of loss is financially worth cutting?

Answer: No, that determination is best left to a site-specific evaluation.

407. Question: Has any benchmark level been developed that shows when the percent of the inventory, or loss per acre, moves from a tolerable endemic level of loss moves (sic) to an epidemic level? If not, is work underway on this?

Answer: Determinations of this nature are best made at the site-specific level. As a result, we are not pursuing development of a measure of this kind.

FIRE

408. Question: How many National Forest acres burned in 1995, compared to 1994 and the 5 year average, 1989-1993? What was the cost to extinguish these fires?

Answer: National Forest Fires

	1994	1995	5 Yr Average 1989-1993
NF acres burned (ac)	1,479,735	382,837	355,729
Suppression Costs (MM$)	678.0	224.3	227.26

TIMBER

409. Question: List by categories:
    - i. Land in Forest Plans rated Suitable for Timber Production with mature timber.
    - ii. Similar land, immature timber over 20 years.
    - iii. Plantations and regenerating land under 20 years.
    - iv. Range land under grazing permit.
    - v. Land in Wilderness.
    - vi. Other land.

410. Question: What was the volume of timber affected on lands in [i] through [iii] and [v]? Distinguish between totally killed, less than 10% killed, 11-40% killed, and 40 to 80% killed?

411. Question: Based on the 1995 GAO report for each Forest, and other credible 1995 sale evidence, what would be the likely receipts and cost to salvage the 1995 burned timber. Show the estimated salvageable volume, gross and net after cost dollars?

INSECTS AND DISEASE

412. Question: Where are the major epidemic levels of insect and disease affected timber?

413. Question: List by Forest and show the 1995 study GAO profit or loss for that Forest.

414. Question: What would be the expected net financial result of salvaging this timber?

SALVAGE RELATED TO THE 1994 FIRES

Provide by Forest, Region and total.

415. Question: How many National Forest acres burned?

416. Question: How many acres were lands rated "Suitable for Timber Production"?

417. Question: How much timber was on these lands before the fire, total volume and per acre in board feet?

418. Question: How much was consumed by the fire?

419. Question: How much was left standing dead?

420. Question: How much was left standing green?

421. Question: How was this determined? Timber cruise, ocular estimate,

etc.

422. Question: What was the fire fighting cost in dollar and per acre? If the fire burned more than Suitable timber land explain the cost allocation?

423. Question: What did the GAO study released in Sept. 1995 show was the dollar, and dollar per acre cut, profit or loss by Forest for timber cut for the years 1992-1994?

424. Question: When did work begin on a salvage sale program after the 1994 fires? When was plan work completed? When was the first sale offered?

425. Question: Were all decisions largely made before the Salvage rider was enacted?

426. Question: List the sales offered and sold by date, acres to cut, volume, volume to cut per acre, the total dollars and dollars per MBF for [i] predicted bid price, [ii] actual advertised price, [iii] bid price, percent overbid, number of bidders, date logging was to start and date for completion. If the Advertised price was less than the Predicted Price, explain why the Advertised Price was depressed.

427. Question: Show the sale volume dead on the date of sale and the green volume, and each was ascertained. Advise whether either timber to leave or cut was marked prior to sale. If not why not. If not how were the trees to be cut designated and who did it?

428. Question: List "no-bid" sales separately, showing in one category sales sold when after date of sale without re-advertisement, re-offered and re-advertised, and in sales not yet sold. For re-offered sales show all changes in volume and advertised price and any change in contract terms.

429. Question: List Salvage sales currently advertised but not sold separately.

430. Question: Show the remaining sales planned from the 1994 fires with estimated date to offer, and volume and estimated advertised price.

431. Question: What is your current estimate of the total volume and value of timber that will be salvaged as a result of the 1994 fire?

432. Question: How many acres that burned in 1994 had [i] immature timber from natural regeneration [ii] immature timber from plantations?

433. Question: What are the site classifications for the burned lands "Suitable for Timber Production"?

434. Question: Show costs for sale planning, sale execution, sale area restoration and regeneration. Show the portions derived by using timber receipts and those funded, or to be funded with appropriations. Show total dollars and dollar cost per acre?

435. Question: Since the Salvage program is in process provide a schedule for annually reporting completed sales that accurately shows gross receipts, receipts used for such work as road building and rebuilding, reforestation, salvage, road maintenance, scaling, county payments, etc, as well as appropriations by activity source. For interim reports show costs as to date, when cutting is complete, and total cost when regeneration is certified.

436. Question: Does the record support the allegation that as the 1995 sale season began that "little has been done to clean up after last year's conflagration. "?

437. Question: Did the Salvage rider actually speed up sales? If so by how much and for what reasons?

Answer: It is very difficult and speculative to attempt to estimate what would have happened if the Emergency Salvage Sale provisions were not in place. Prior to enactment of the Emergency Salvage Sale provisions, the various agencies that regulate activities on national forests signed a Memorandum of Agreement to expedite the consultation process. This expedited process for endangered species consultation saved time in preparing salvage sales. This process involves getting regulatory agency scientists involved in the planning stages of salvage sales to reduce or eliminate conflicts that could occur during the formal consultation process. The provisions did produce efficiencies gained through expedited procedures related to the National Environmental Policy Act (NEPA) analyses and administrative appeals.

438. Question: How did the salvage rider affect your relations with the several groups with interest in the National Forests?

Answer: Provisions in the Rescissions act have caused controversy. We believe that some of the controversy is caused by combining two different timber provisions of the Rescissions Act. Section 2001 is titled "Emergency Salvage Timber Sale Program" and refered to as the "salvage rider" but it contains provisions for the sale of green timber also. The Act's provisions relating to the "318" (section 2001(k)) and option 9 sales (section 2001(d)) are not salvage at all and are controversial because they relate to the sale of the old growth green timber. The primary problems we have encountered with the law relate to section (k), which provides for release of "Section 318" timber sales in Washington and Oregon. Our interpretations of that section have been challenged extensively in court. Some of the District Court decisions have been adverse to the government's position and have been appealed to the Ninth Circuit Court of Appeals. As a result, resolution of many of the sales has been delayed. Where we have complied with court orders to proceed with original sales, substantial public controversy has been generated. This has added to our workload--stepped up law enforcement efforts to provide for public safety at timber sale sites where public protests are occurring.

Also, sales being carried out under the Act are often referred to as "logging without laws" because the Act waives procedural requirements of environmental laws and the agency's appeal process. However, the President directed the agency to meet the intent of environmental laws unless the Act specifically prohibited them, such as in the case of appeals. Nonetheless, this description of the Act has developed and fed public controversy.

PAST SALVAGE ACTIVITY

439. Question: For FY 1988-1995, and projected FY 1996, for each year, and in total, how much was collected under the Salvage Fund. How many board feet of timber was cut, what were the gross receipts, what was the cost in dollars and per thousand board feet, including receipts used and appropriated funds spent on pre-sale, sale, or post sale activities from planning to certifying regeneration and payments in-lieu of taxes under 16 U. S. C. 500?

440. Question: For each year, and in total, what was the net Treasury dollar position for salvage after all of these costs were deducted from salvage sale receipts?

441. Question: How does the attention given salvage for 1988-1994 compare with the 1981-1987 salvage performance in terms of sale volume?

SALVAGE RIDER PROFIT CLAIMS

442. Question: Salvage rider proponents forecast profits from as much as "billions of dollars" from their rider to as little as $300 million. What estimates did the Forest Service supply to Members, Committees or private parties as the salvage rider was being developed? How do these estimates of results compare with past and the likely outcome? Does the FY 1995 outcome support any of the estimates made by you or other rider proponents?

443. Question: One estimate for 3 billion board feet forecast an average bid price of $220 per thousand BF, $660 million. It had $50 per thousand BF for cost, $ 150 million, plus $165 million in county payments, for an implied profit of $345 million. Was that a Forest Service estimate? How do these costs compare with actual 1994 sale costs from plans to certified regeneration? How does this revenue forecast with revenue to date for salvage sales made under the rider? What is the volume sold to date and the total and per thousand BF price? What is the likely outcome after all costs?

GAO REPORT ON TIMBER LOSSES

444. Question: The GAO reported, "we did not independently verify or test the reliability of the receipt and outlay data provided by the Forest Service. However, the Forest Service's financial statement audit reports for the fiscal years 1992-1994 revealed significant internal

control weaknesses in various accounting subsystems that resulted in unreliable accounting data including timber-related data."

i. What significant control weaknesses did these audits identify?
ii. Were they repeated in the 1995 internal audits?
iii. If these haven't been corrected, why not?
iv. Provide a timetable to correct and report to the Committee.

445. Question: Is it correct that GAO took the costs you gave them? Isn't it correct that these costs didn't include all of the appropriated fund timber sale costs from sale planning to certified regeneration. Also weren't several timber costs that reduce appraised values omitted, such as work buyers do on brush disposal and road maintenance, scaling bureau payments, possessory interest yield taxes paid by purchasers, and erosion control? What is the total of all of these omitted costs for 1992-1994? Show the financial outcome when all costs are counted.

446. Question: GAO lists 23 Forests with 3 year cash deficits greater than $10 million. Using the GAO formula, show the 1995 financial posture of each Forest? What is their projected 1996 financial posture? What actions has the Forest taken on each of these Forests to curb its financial losses?

TIMBER SALE PROGRAM INFORMATION AND REPORTING SYSTEM

This accrual accounting system started in FY 1988. Reports don't issue until 7 months after a fiscal year ends. Corporations issue theirs a few days after their business year ends.

447. Question: Why isn't this year-end report and others publicly available shortly after the year ends?

Answer: The Timber Sale Program Annual Report (i.e., the TSPIRS Report) draws information from many sources. These include: the Timber Sale Accounting (TSA) system, the Cut & Sold Report, the Periodic Timber Sale Accomplishment Report, and the TRACS-SILVA Report. At the end of each fiscal year it takes time to verify the integrity of the information in these databases, and to display the numbers in the desired reporting formats. Additionally, preparation of the Economic Account, and of the Employment, Income, and Program Level Account, requires that the forests and/or regions do independent analyses that cannot be commenced until such time as the final program accomplishment figures are known. All of these activities must be completed while other work activities are being carried out. Once a draft of the report has been prepared, it must be reviewed both within the agency and by the Department of Agriculture. Up until such time as the final report is formally released, the agency has always treated it as a preliminary document that is subject to change -- and consistent with this position has treated the information as confidential.

448. Question: Provide the documents that show how TSPIRS is used to

improve the financial and conservation effectiveness of the timber program.

[i] Show how TSPIRS is used to plan and set timber program levels?
[ii] Show how TSPIRS is used to improve sale execution and performance?
[iii] Show how TSPIRS is used to assure quality sale area conservation results?
Provide documentation for each application.

Answer: TSPIRS was designed primarily to be a reporting mechanism as opposed to a program management tool; but this is not to say that it has no value for program management purposes. Since TSPIRS was developed, it has been used to monitor trends in unit costs, compare the unit costs being experienced on different administrative units, and monitor trends in program profitability. This information has, in turn, been used to identify situations meriting further study to determine if a problem exists and if some type of corrective action is warranted. Recently, a series of regional cost efficiency reviews has been instituted to: (1) identify the factors that are influencing program costs, (2) learn what steps the regions and forests have been taking to reduce costs and improve efficiency, and (3) identify additional steps that might be taken to improve the profitability of national forest timber sales. Typically, before one of these reviews is conducted, TSPIRS data are used to develop some comparative statistics on program size, program revenues, and program costs. This information is used to frame discussions with field personnel during the course of a review.

TSPIRS is not used, except in a very tangential manner, to plan and set timber program levels. Such decisions are made during the forest planning process, and also reflect the funding that is received in annual appropriations. In recent years, in an effort to improve program efficiency, more weight has been given to relative unit costs in allocating funding between regions -- but this is only one of many factors that are considered.

TSPIRS is not used, except in an indirect way, to improve sale execution and performance. As already noted, it is used to monitor costs trends and to identify unprofitable situations -- and this information can help direct a manager's attention to possible trouble spots. Additionally, the agency has recently instituted requirements for more detailed economic analysis during the sale preparation process, and TSPIRS can provide a source of cost information for conducting such analyses.

TSPIRS is not used to assure quality sale area conservation results. Such results stem from adherence to pre-established forest plan standards and guidelines, and from proper harvest administration.

449. Question: Provide 3 examples of sales that demonstrate how the "Commodity" volume and receipts and cost allocation was distinquished from the "Stewardship" component under the division begun in FY 1993. Show how the division was developed from the time the sale was planned

until it was complete.

Answer: The FY 1993 decision to separate the overall national forest timber sales program into three distinct components -- the "timber commodity" component, the "forest stewardship" component, and the "personal use" component -- was made for essentially two reasons: (1) to better reflect the reasons why national forest timber is sold, and (2) to better frame the context of the below-cost sale debate.

When a sale is being prepared, compliance with the requirements of the National Environmental Policy Act (NEPA) necessitates that the project's potential environmental effects be assessed and documented in either an environmental assessment (EA), or an environmental impact statement (EIS). Both of these documents contain a "Purpose and Needs" section that explains, in some detail, the types of treatments being proposed for specific management units, and the reasons why these treatments are being recommended. This information forms the basis for characterizing a sale as being for timber commodity, forest stewardship, or personal use purposes -- or for some combination of these motivations. Specifically, the project planner or other designated person considers the primary objective being sought on each unit of the overall sale area.

To the extent possible, the final characterization of a sale should reflect the proportions of total harvest volume that are expected to be associated with each objective. The appropriate codes are entered into the Timber Sale Accounting (TSA) System, and are used, from that point forward, to track the sale revenues specifically attributable to each sale purpose.

Listed below are data from three active sales that were examined during recent reviews conducted in Regions 8 and 10 (i.e., the Southern and Alaska Regions):

1) Compartments 302 & 315; Homochitto RD; Homochitto NF; NFS in Mississippi.

EA indicates the following sale-related objectives:
- midstory removal to create habitat favorable to the red cockaded woodpecker (RCW);
- maintain habitat diversity required by the National Forest Management Act (NFMA); and
- thinning to increase vigor in stands showing signs of decreased vigor.

Sale was coded as follows:
- TC/01 -- 20 percent; and
- FS/50 -- 80 percent.

2) Compartment 9; Oakmulgee RD; Talladega NF; NFS in Alabama.

EA indicates the following sale-related objectives:
- produce a balanced program of market and non-market outputs;

- promote the longleaf pine ecosystem;
- minimize the potential for insect and disease damage; and
- provide for a desirable distribution of early, mid, and late successional plant communities.

Sale was coded as follows:
- TC/01 -- 52 percent; and
- FS/10 -- 48 percent.

3) Central Prince of Wales; Thorne Bay RD; Ketchikan Area; Tongass NF.

EIS indicates the following sale-related objectives:
- to help satisfy timber supply requirements stemming from long-term contract with Ketchikan Pulp Company;
- to help satisfy the requirements of the Tongass Timber Reform Act to provide, to the extent feasible, a sustained supply of timber sufficient to meet market demand; and
- to help implement direction in the Tongass Land Management Plan.

Sale was coded as follows:
- TC/01 -- 100 percent.

I'm advised that the TSPIRS list of Forests that make or lose money excludes Regional and Washington office and 25% county payment costs.

450. Question: Is this correct? If so, why are these costs excluded?

Answer: Regional and Washington office costs are not included in the individual Forest reports. Separate reports are produced for each Regional Office and the Washington Office. Revenue shared with States and counties is displayed to show the distribution of receipts from timber sales.

The TSPIRS reports are prepared using standards for reporting based on the level of program responsibility or accountability. Unit managers are accountable for those revenues and costs which they control. This allows for a better evaluation of the monetary performance for each unit's timber sale program. Since a Forest has no responsibility or control over the costs of a regional office or the Washington office, these costs cannot be used in the measurement of a Forest's gain or loss. It should be noted that in the national summary of TSPIRS, all regional and Washington office costs are included. Regional summaries are also prepared that show the total forest and regional office costs for each region. There is no current allocation procedure to distribute regional and Washington office costs to individual field units.

Revenue sharing with States and counties is displayed. Timber sale receipts are revenue and not costs of the program. Congressional direction and agency policy determine how revenues from timber receipts are allocated among needs for reforestation, brush disposal, site improvement, revenue sharing with States and the general treasury. The Government Accounting Office helped guide the agency in the development of the Timber Sale Program Information Reporting System (TSPIRS) and has confirmed that it is structured appropriately.

451. Question: If a Forest had no timber income, it wouldn't make 25% payments. Since these payments occur only because there are receipts, under what theory are they omitted as a cost?

Answer: Revenue shared with local government is based on deposits received by the agency from many sources including timber sales, grazing, land uses, recreation, power and minerals. The gross receipts from timber sales are revenue. The allocation of those receipts among the Brush Disposal Fund, the Knudsen-Vandenberg Fund, the Salvage Sale Fund and the National Forest Fund are a result of Congressional direction and agency policy. Congressional direction on which deposits to include for calculating revenue sharing has changed over the years and continues to evolve.

The Government Accounting Office has agreed with the Forest Service on what constitutes direct and indirect expenses of the program and what constitutes revenues. Payments to States are displayed after Net Revenue has been calculated. These payments reflect a disposition of income and not a cost of the program.

452. Question: For your 1995 TSPIRS report, please provide by Forest the total receipts, costs, including Regional and Washington Office costs and actual payments to counties.

Answer: As noted previously, it is inconsistent with the intent of TSPIRS, to include the Regional and Washington office costs in the individual Forest reports. The only way to reflect these costs at the Forest level would be through some formula of allocation. To date, no allocation method that equitably distributes the regional and Washington office costs to the Forests has been developed. These costs if available, would not be applicable to the reporting standards used in TSPIRS financial account preparation. The spreadsheet attached, however, does list the costs for regional and Washington office units as well as all the research station units individually.

The actual 25% Payment to States amount related to timber revenues are currently shown on each Forest's report. They are not, as previously explained, included in the Net Gain or Loss calculation. The attached spreadsheet does list the timber related Payment to States for each forest separately.

453. Question: Provide a list of each Forest that TSPIRS showed lost money, by the count the Service used for the 8 years since TSPIRS has been operating. Show the volume cut, the acres cut, the dollar loss, dollar per MBF and per acres loss, by year and the 8 year total. Provide the same data, including Regional and Washington office and county payment costs.

Answer: Attached are spreadsheets which show by Forest, the Forests which lost money as reflected in TSPIRS, the amount of the loss, the

Question 452 -- 4 Page Spreadsheet

FY 1995 TSPIRS Information

Unit | Unit Name | Total Revenues | Total Expenses | Payment to States

FY 1995 TSPIRS Information

Unit	Unit Name	Total Revenues	Total Expenses	Payment to States
0102	Beaverhead	$596,509.80	$1,276,661.27	$139,127.17
0103	Bitterroot	$1,217,232.82	$1,767,250.47	$282,271.59
0104	Idaho Panhandle	$20,264,512.52	$15,696,493.13	$4,934,124.50
0105	Clearwater	$11,496,750.18	$9,757,683.03	$2,960,034.67
0108	Custer	$465,363.89	$947,336.71	$92,460.85
0109	Deerlodge	$2,233,621.59	$2,041,690.36	$450,919.48
0110	Flathead	$4,635,530.52	$5,802,596.14	$1,061,603.84
0111	Gallatin	$405,620.38	$1,321,898.45	$87,517.62
0112	Helena	$1,386,016.48	$1,223,952.75	$411,087 68
0114	Kootenai	$21,798,595.77	$13,681,431.62	$5,188,272.27
0115	Lewis and Clark	$1,721,962.69	$1,810,066.52	$459,332.34
0116	lolo	$5,074,781.06	$5,641,792.74	$1,408,019.35
0117	Nezperce	$5,400,879.24	$7,183,160.09	$1,173,388.02
0151	RO-1		$564,294.18	
0152	RO-1		$111,919.84	
0156	RO-1		$5,349,799.22	
0157	RO-1		$3,533,339.95	
0202	Bighom	$786,133.65	$687,758.10	$148,272.74
0203	Black Hills	$13,673,056.40	$6,424,500.73	$3,194,784.93
0204	Grand Mesa-Unc.-Gunn.	$2,157,871.52	$2,196,904.12	$401,696.85
0206	Medicine Bow	$898,544 49	$1,687,598.05	$221,084.70
0207	Nebraska	$900.00	$36,547.86	$2,003.56
0209	Rio Grande	$3,296,189.40	$1,719,826.70	$831,501.20
0210	Arapaho-Roosevelt	$370,498.26	$707,124.07	$99,124.63
0211	Routt	$2,251,208.05	$1,707,892.79	$508,645.32
0212	Pike-San Isabel	$355,831.36	$416,276.83	$67,617.12
0213	San Juan	$990,575.99	$1,492,291.68	$236,685.58
0214	Shoshone	$303,676.84	$570,007.07	$78,035.66
0215	White River	$1,487,172.53	$1,717,271.17	$317,339.91
0231	RO - 2		$1,891,001.55	
0301	Apache Sitgreaves	$2,528,160.97	$4,553,213.93	$724,411.13
0302	Carson	$715,892.45	$2,066,333.28	$122,808.54
0303	Cibola	$127,475.90	$652,541.91	$33,631.74
0304	Coconino	$2,288,499.46	$3,359,710.34	$545,884.39
0305	Coronado	$14,325.85	$241,650.08	$3,581 46

FY 1995 TSPIRS Information

Unit	Unit Name	Total Revenues	Total Expenses	Payment to States
0306	Gila	$409,343 67	$1,821,267.23	$100,270.77
0307	Kaibab	$2,622,391.22	$2,335,798.40	$623,711.83
0308	Lincoln	$91,388.36	$658,979.95	$17,443.52
0309	Prescott	$71,426.32	$348,010.73	$16,993.34
0310	Santa Fe	$287,417 40	$2,363,922.00	$70,237 08
0312	Tonto	$603,613.33	$1,173,926 55	$190,705.21
0316	RO - 3		$2,242,636.07	
0401	Ashley	$1,022,452.61	$1,436.786.19	$236,252.86
0402	Boise	$11,132,872.35	$7,703,663.25	$2,066,747.39
0403	Bridger-Teton	$969,395.86	$1,234,603.94	$232,755.41
0405	Caribou	$975,000.57	$948,558.62	$228.783.40
0406	Challis			
0407	Dixie	$968,061.15	$2,116,071.89	$228.020.51
0408	Fishlake	$162,527.10	$459,683 32	$39.349.97
0409	Humboldt	$10,796.00	$63,813.52	$2.699.00
0410	Manti-Lasal	$258,264.43	$883,724.43	$56,673.26
0412	Payette	$9,465,958.87	$6,083,188.28	$2,279,262.57
0413	Salmon	$1,347,815.39	$2,641,916.42	$344,547.65
0414	Sawtooth	$477,279.19	$756,618.26	$107,726.25
0415	Targhee	$699,956 26	$2,251,118.17	$202,508.32
0417	Toiyabe	$90,654 07	$833,879.54	$20.819.90
0418	Uinta	$909,704.20	$425,329.92	$221.986.30
0419	Wasatch	$127,166.47	$566,944.77	$25,294 60
0460	RO - 4		$3,675,396.71	
0501	Angeles	$18,694.75	$464.127.11	$4,152.17
0502	Cleveland	$7,396.50	$87.977.37	$1,645.23
0503	Eldorado	$1,813,318.73	$6,338 987.72	$449.419.90
0504	Inyo	$3,868,543.91	$1,079,167.63	$952,921.67
0505	Klamath	$5,583,610.14	$7,548,832.57	$4,239,033.61
0506	Lassen	$26,987.533.90	$8,739,685.33	$6,734,211.96
0507	Los Padres	$6,221.01	$195,840.37	$1,250.03
0508	Mendocino	$31 654.62	$2,140,635.15	$2,329,426.35
0509	Modoc	$10,287,647.66	$9,264,949.63	$2,642,197.32
0510	Six Rivers	$3,016,506.95	$4,588,047.03	$4,085,400.40
0511	Plumas	$24,786,953.28	$11,070,573.12	$5,297,938.21
0512	San Bernardino	$164,387.50	$585,540.46	$39.292.34
0513	Sequoia	$3,877,182.44	$4,338,161.38	$896,961.17
0514	Shasta Trinity	$11,491,026 97	$7,618,108.37	$6,438,428.59
0515	Sierra	$5,336,923 46	$5,615,323.56	$1,248,311.94
0516	Stanislaus	$11,475,428.04	$8,827,970.32	$2,581,151.61

FY 1995 TSPIRS Information

FY 1995 TSPIRS Information

Unit	Unit Name	Total Revenues	Total Expenses	Payment to States
0517	Tahoe	$5,516,278.19	$7,205,809.99	$1,031,779.94
0519	Lake Tahoe Basin	$355,239.53	$825,826.03	$55,914.21
0520	RO - 5		$11,211,146.61	
0601	Deschutes	$15,731,150.41	$12,512,793.61	$5,211,029.89
0602	Fremont	$10,552,758.65	$9,288,848.37	$2,435,732.29
0603	Gifford Pinchot	$16,501,118.58	$14,918,126.81	$12,581,150.99
0604	Malheur	$50,480,482.76	$17,938,992.26	$11,399,458.60
0605	Mt. Baker - Snoqualmie	$6,091,958.48	$7,235,089.74	$5,829,132.90
0606	Mt. Hood	$11,455,138.22	$13,054,592.84	$10,138,024.14
0607	Ochoco	$15,139,989.74	$9,708,225.00	$3,436,311.10
0608	Okanogan	$5,110,978.91	$4,722,275.49	$1,434,831.04
0609	Olympic	$3,178,930.62	$7,220,999.97	$4,737,443.97
0610	Rogue River	$12,942,992.42	$7,767,479.12	$6,393,839.26
0611	Siskiyou	$8,213,573.12	$9,450,789.33	$6,332,357.54
0612	Siuslaw	$10,710,917.35	$7,304,974.48	$12,958,729.54
0614	Umatilla	$3,776,146.70	$8,220,015.62	$839,596.39
0615	Umpqua	$25,774,520.36	$13,134,312.07	$14,392,297.66
0616	Wallowa Whitman	$3,842,060.73	$9,592,027.09	$874,752.14
0617	Wenatchee	$2,261,667.65	$6,419,722.11	$3,221,377.45
0618	Willamette	$39,121,591.41	$24,442,290.54	$26,996,010.20
0620	Winema	$7,988,057.02	$8,794,514.96	$8,088,820.52
0621	Colville	$8,315,909.55	$8,785,792.19	$1,875,972.21
0627	RO - 6		$12,998,158.87	
0801	NFS Alabama	$5,765,122.90	$3,859,704.46	$1,408,560.31
0802	Daniel Boone	$1,202,551.73	$2,515,899.64	$294,261.84
0803	Chatt - Oconee	$2,797,506.73	$3,092,661.78	$683,103.32
0804	Cherokee	$1,401,377.04	$2,066,713.47	$343,034.63
0805	NFS Florida	$4,604,912.97	$3,735,588.45	$1,125,180.82
0806	Kisatchie	$8,702,701.95	$4,691,476.71	$2,122,632.52
0807	NFS Mississippi	$29,005,086.07	$9,315,990.00	$7,165,980.74
0808	George Washington	$2,320,392.57	$2,075,486.55	$568,719.97
0809	Ouachita	$16,803,279.42	$9,733,867.89	$4,085,767.57
0810	Ozark - St. Francis	$5,039,733.08	$3,450,877.17	$1,244,674.64
0811	NFS North Carolina	$3,412,226.08	$4,390,061.12	$833,217.47
0812	Marion-Sumter	$4,629,646.16	$3,729,616.38	$1,310,132.17
0813	NFS Texas	$11,498,554.07	$4,517,159.66	$2,824,350.90
0814	Jefferson	$1,547,863.40	$2,312,321.58	$374,878.73
0816	Caribbean		$15,798.11	
0831	RO - 8		$8,922,065.31	
0901	RO - 9		$3,071,378.49	

Prepared by Tom Shehan, 5/9/96

FY 1995 TSPIRS Information

Unit	Unit Name	Total Revenues	Total Expenses	Payment to States
0902	Chequamegon	$2,414,689.50	$2,947,162 45	$586,775.74
0903	Chippewa	$3,290,674.79	$2,353,631.12	$816,012.64
0904	Huron Manistee	$2,854,187.44	$2,671,966.76	$701,329.91
0905	Mark Twain	$4,736,384.63	$3,748,734.51	$1,144,993 58
0906	Nicolet	$2,584,961.45	$3,058,308.03	$641,684 49
0907	Ottawa	$3,025,065.99	$3,299,148.83	$818,401.43
0908	Shawnee	$74,665.22	$610,530.35	$18,613.75
0909	Superior	$2,687,101.77	$2,846,672.82	$671,752.17
0910	Hiawatha	$3,431,676.23	$3,160,948.22	$860,301.17
0912	Hoosier	$11,187.74	$134,838.03	$6,717.19
0914	Wayne	$17,263.79	$317,599.49	$5,660.47
0919	Allegheny	$21,025,572.60	$5,004,035.35	$5,306,025 08
0920	Green Mountain	$446,331.80	$883,410.05	$107,180.69
0921	Monongahela	$5,165,547.44	$2,315,733.27	$1,279,347.43
0922	White Mountain	$1,032,001.16	$2,088,258.98	$249,216.36
1001	RO - 10		$9,969,078.29	
1002	Tongass - Stikine	$2,997,610.12	$7,237,269.92	$609,073.18
1003	Tongass - Chatham	$3,627,202.47	$7,449,888.65	$905,682.77
1004	Chugach	$24,697.57	$621,071.73	$3,712 93
1005	Tongass - Ketchikan	$24,014,039.16	$14,987,516.28	$5,912,546.75
1111	Forest Products lab		$250.04	
1301	WO		$21,446,563.73	
1304	Geometronics		$1,525,706.51	
1381	San Dimas EDC		$797,815.06	
1382	Missoula EDC		$666,379.36	
2220	Intermountain Station		$166,533.26	
2313	North Central Station		$1,634.23	
2423	Northeastern Station		$1,146.46	
2442	Northeastern S&PF		$124,683.96	
2619	Pacific Northwest Station		$2,370,348.48	
2721	Pacific Southwest Station		$150,519.60	
2816	Rocky Mountain Station		$40,418.76	
2918	Southeastern Station		$111,352.70	
3019	Southern Station		$397.70	

Prepared by Tom Shehan, 5/9/96

Question 453 -- 13 Page Spreadsheet

Forests with TSPIRS Losses - FY 1995

Reg/Unit | Forest Name | Net Loss | Volume Harvested (MBF) | Loss Per MBF | Acres Harvested | Loss Per Acre

Forests with TSPIRS Losses - FY 1995

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($680,151.47)	5,540	($122.77)	1,701	($399.85)
0103	Bitterroot	($550,017.65)	6,864	($80.13)	1,125	($488.90)
0108	Custer	($481,972 82)	5,080	($94.88)	937	($514 38)
0110	Flathead	($1,167,065.62)	21,990	($53.07)	1,821	($640.89)
0111	Gallatin	($916,278.07)	4,676	($195.95)	1,408	($650.77)
0115	Lewis and Clark	($88,103.83)	9,604	($9.17)	1,096	($80.39)
0116	Lolo	($567,011.68)	24,064	($23.56)	3,050	($185.91)
0117	Nezperce	($1,782,280.85)	38,833	($45.90)	1,463	($1,218.24)
0204	Grand Mesa-Unc.-Gunn.	($39,032.60)	25,478	($1.53)	2,490	($15.68)
0206	Medicine Bow	($789,053.56)	7,757	($101.72)	1,113	($708.94)
0207	Nebraska	($35,647.86)	9	($3,960.87)	0	ERR
0210	Arapho-Roosevelt	($336,625.81)	2,243	($150.08)	163	($2,065.19)
0212	Pike-San Isabel	($60,445.47)	3,797	($15.92)	539	($112.14)
0213	San Juan	($501,715.69)	11,615	($43.20)	1,256	($399 46)
0214	Shoshone	($266,330.23)	4,937	($53.95)	33	($8,070.61)
0215	White River	($230,098.64)	15,847	($14.52)	2,589	($88.88)
0301	Apache-Sitgreaves	($2,025,052.96)	26,946	($75.15)	3,986	($508.04)
0302	Carson	($1,350,440.83)	5,391	($250.50)	1,611	($838.26)
0303	Cibola	($525,066.01)	4,698	($111.76)	214	($2,453.58)
0304	Coconino	($1,071,210.88)	19,896	($53.84)	5,341	($200.56)
0305	Coronado	($227,324.23)	161	($1,411.95)	0	ERR
0306	Gila	($1,411,923.56)	6,745	($209.33)	948	($1,489.37)
0308	Lincoln	($567,591.59)	3,613	($157.10)	29	($19,572.12)
0309	Prescott	($276,584.41)	3,321	($83.28)	200	($1,382.92)
0310	Santa Fe	($2,076,504.60)	10,014	($207.36)	130	($15,973.11)
0312	Tonto	($570,313.22)	5,277	($108.08)	1,342	($424.97)
0401	Ashley	($414,333.58)	12,389	($33.44)	511	($810 83)
0403	Bridger-Teton	($265,208 08)	13,012	($20.38)	565	($469.39)
0407	Dixie	($1,148,010.74)	7,883	($145.63)	1,143	($1,004 38)
0408	Fishlake	($297,156.22)	2,262	($131.37)	180	($1,650 87)
0409	Humboldt	($53,017 52)	452	($117.30)	0	ERR
0410	Manti-Lasal	($625,460.00)	3,534	($176 98)	88	($7,107.50)
0413	Salmon	($1,294,101.03)	10,602	($122.06) ?		ERR
0414	Sawtooth	($279,339.07)	9,088	($30.74)	447	($624 92)
0415	Targhee	($1,551,161.91)	10,131	($153.11)	685	($2,264.47)
0417	Toiyabe	($743,225.47)	2,495	($297.89)	0	ERR
0419	Wasatch	($439,778.30)	2,188	($201.00)	245	($1,795.01)
0501	Angeles	($445,432.36)	218	($2,043.27)	210	($2,121.11)
0502	Cleveland	($80,580.87)	212	($380.10)	0	ERR
0503	Eldorado	($4,525,668.99)	13,975	($323.84)	120	($37,713.91)
0505	Klamath	($1,965,222.43)	26,039	($75.47)	2,780	($706 91)
0507	Los Padres	($189,619.36)	178	($1,065.28)	0	ERR
0508	Mendocino	($2,108,980.53)	1,053	($2,002.83)	0	ERR
0510	Six Rivers	($1,571,540.08)	13,041	($120.51)	0	ERR
0512	San Bernardino	($421,152.96)	2,307	($182.55)	0	ERR

Forests with TSPIRS Losses - FY 1995

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0513	Sequoia	($460,978.94)	16,980	($27.15)	14,237	($32.38)
0515	Sierra	($278,400.10)	20,710	($13.44)	493	($564.71)
0517	Tahoe	($1,689,531.60)	42,981	($39.31)	7,307	($231.22)
0519	Lake Tahoe Basin	($470,586.50)	7,856	($59.90)	5,025	($93.65)
0605	Mt. Baker-Snoqualmie	($1,143,131.26)	24,992	($45.74)	493	($2,318.72)
0606	Mt. Hood	($1,599,454.62)	28,089	($56.94)	2,030	($787.91)
0609	Olympic	($4,042,069.35)	13,630	($296.56)	365	($11,074.16)
0611	Siskiyou	($1,237,216.21)	16,635	($74.37)	510	($2,425.91)
0614	Umatilla	($4,443,868.92)	20,989	($211.72)	2,553	($1,740.65)
0616	Wallowa Whitman	($5,749,966.36)	33,051	($173.97)	3,811	($1,508.78)
0617	Wenatchee	($4,158,054.46)	17,906	($232.22)	1,726	($2,409.07)
0620	Winema	($806,457.94)	35,497	($22.72)	3,300	($244.38)
0621	Colville	($469,882.84)	41,896	($11.22)	3,085	($152.31)
0802	Daniel Boone	($1,313,347.91)	12,162	($107.99)	443	($2,964.67)
0803	Chatt.-Oconee	($295,155.05)	28,347	($10.41)	5,586	($52.84)
0804	Cherokee	($665,336.43)	17,646	($37.70)	1,511	($440.33)
0811	NFS North Carolina	($977,835.04)	37,913	($25.79)	4,579	($213.55)
0814	Jefferson	($764,458.18)	22,257	($34.35)	1,715	($445.75)
0902	Chequamegon	($532,472.95)	63,411	($8.40)	7,050	($75.53)
0906	Nicolet	($473,346.58)	66,236	($7.15)	10,130	($46.73)
0907	Ottawa	($274,082.84)	72,015	($3.81)	13,245	($20.69)
0908	Shawnee	($535,885.13)	2,707	($197.96)	339	($1,580.72)
0909	Superior	($159,571.05)	89,438	($1.78)	6,444	($24.76)
0912	Hoosier	($123,650.29)	316	($391.30)	23	($5,376.10)
0914	Wayne	($300,335.70)	750	($400.45)	56	($5,363.14)
0920	Green Mountain	($437,078.25)	4,910	($89.02)	1,189	($367.60)
0922	White Mountain	($1,056,257.82)	19,913	($53.04)	2,152	($490.83)
1002	Tongass-Stikine	($4,239,659.80)	28,115	($150.80) ?		ERR
1003	Tongass-Chatham	($3,822,686.18)	30,727	($124.41) ?		ERR
1004	Chugach	($596,374.16)	1,803	($330.77)	169	($3,528.84)

Prepared by Tom Shehan, 5/9/96

Forests with TSPIRS Losses - FY 1994

Reg/Unit Forest Name Net Loss Volume Harvested (MBF) Loss Per MBF Acres Harvested Loss Per Acre

Forests with TSPIRS Losses - FY 1994

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($515,185.94)	12,588	($40 93)	1,341	($384.18)
0103	Bitterroot	($1,497,956.22)	4,211	($355.72)	289	($5,183.24)
0108	Custer	($450,220.64)	2,578	($174.64)	405	($1,111.66)
0109	Deerlodge	($244,708.91)	7,950	($30.78)	676	($362.00)
0110	Flathead	($2,786,923.52)	20,295	($137.32)	1,436	($1,940.75)
0111	Gallatin	($708,769 66)	11,056	($64.11)	1,450	($488 81)
0112	Helena	($26,309.82)	9,245	($2.85)	260	($101.19)
0115	Lewis and Clark	($14,149 93)	15,930	($0 89)	1,538	($9.20)
0202	Bighorn	($447,236.80)	7,117	($62.84)	1,622	($275.73)
0204	Grand Mesa-Unc -Gunn.	($240,589.31)	45,853	($5.25)	5,431	($44.30)
0212	Pike-San Isabel	($58,740.11)	7,901	($7.43)	1,939	($30.29)
0213	San Juan	($293,783.23)	19,698	($14.91)	1,781	($164 95)
0214	Shoshone	($501,708.48)	7,754	($64.70)	553	($907 25)
0215	White River	($112,681.76)	19,846	($5.68)	1,945	($57 93)
0302	Carson	($1,568,403.99)	4,984	($314.69)	0	ERR
0303	Cibola	($783,640.59)	3,427	($228.67)	782	($1,002.10)
0304	Coconino	($419,802.73)	29,182	($14.39)	5,597	($75.00)
0305	Coronado	($159,275.53)	193	($825.26)	0	ERR
0306	Gila	($1,539,495.96)	14,292	($107.72)	53	($29,047.09)
0307	Kaibab	($779,785 55)	7,706	($101.19)	767	($1,016.67)
0308	Lincoln	($621,844.49)	3,337	($186.35)	1,278	($486.58)
0309	Prescott	($251,377.69)	4,134	($60.81)	359	($700 22)
0310	Santa Fe	($1,627,045.41)	2,977	($546.54)	1,602	($1,015.63)
0401	Ashley	($159,299.69)	16,484	($9.66)	1,330	($119.77)
0403	Bridger-Teton	($302,556.10)	16,373	($18.48)	362	($835.79)
0405	Caribou	($160,541.53)	7,739	($20.74)	478	($335.86)
0406	Challis	($100,226.09)	5,240	($19.13) ?		ERR
0408	Fishlake	($298,833.94)	3,123	($95.62)	252	($1,185.06)
0409	Humboldt	($147,281.09)	732	($201.20)	0	ERR
0410	Manti-Lasal	($627,141.49)	3,529	($177.71)	200	($3,135.71)
0413	Salmon	($403,634.44)	11,788	($34.24) ?		ERR
0415	Targhee	($915,319.79)	16,601	($55 14)	861	($1,063.09)
0501	Angeles	($560,448.74)	122	($4,593.84)	200	($2,802.24)
0502	Cleveland	($155,360.71)	185	($839.79)	0	ERR
0505	Klamath	($92,304.14)	34,066	($2.71)	2,159	($42.75)
0507	Los Padres	($212,465 98)	294	($722.67)	0	ERR
0508	Mendocino	($2,111,799.37)	5,823	($362.67)	315	($6,704.12)
0512	San Bernardino	($638,545.98)	2,440	($261.70)	50	($12,770.92)
0519	Lake Tahoe Basin	($72,639.29)	7,839	($9.27)	650	($111.75)
0605	Mt. Baker-Snoqualmie	($1,102,227 65)	28,094	($39.23)	296	($3,723.74)
0609	Olympic	($4,585,439.98)	7,646	($599 72)	750	($6,113.92)
0611	Siskiyou	($3,125,069.15)	12,051	($259.32)	690	($4,529.09)
0612	Siuslaw	($1,488,382.78)	15,169	($98.12)	576	($2,584.00)
0614	Umatilla	($1,095,976.63)	41,434	($26.45)	6,171	($177 60)
0616	Wallowa Whitman	($5,156,252.02)	57,856	($89.12)	7,369	($699.72)

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Forests with TSPIRS Losses - FY 1994

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0617	Wenatchee	($3,846,017.71)	32,534	($118.22)	2,354	($1,633.82)
0621	Colville	($1,204,404.53)	41,423	($29.08)	4,082	($295.05)
0802	Daniel Boone	($1,070,417.42)	20,812	($51.43)	1,349	($793.49)
0803	Chatt.-Oconee	($256,117.48)	40,534	($6.32)	7,093	($36.11)
0804	Cherokee	($471,695.64)	21,120	($22.33)	1,442	($327.11)
0805	NFS Florida	($268,479.18)	58,448	($4.59)	6,769	($39.66)
0808	George Washington	($1,193.83)	37,231	($0.03)	2,993	($0.40)
0811	NFS North Carolina	($1,883,251.45)	36,803	($51.17)	3,622	($519.95)
0814	Jefferson	($601,204.42)	20,071	($29.95)	2,438	($246.60)
0902	Chequamegon	($685,450.58)	78,128	($8.77)	10,245	($66.91)
0906	Nicolet	($396,003.12)	67,340	($5.88)	11,615	($34.09)
0907	Ottawa	($270,971.88)	68,689	($3.94)	13,020	($20.81)
0908	Shawnee	($397,256.96)	2,754	($144.25)	203	($1,956.93)
0909	Superior	($349,214.46)	83,802	($4.17)	8,194	($42.62)
0910	Hiawatha	($140,177.83)	69,059	($2.03)	11,007	($12.74)
0912	Hoosier	($178,436.06)	1,102	($161.92)	43	($4,149.68)
0914	Wayne	($471,197.42)	1,973	($238.82)	78	($6,040.99)
0920	Green Mountain	($522,395.80)	4,471	($116.84)	1,191	($438.62)
0922	White Mountain	($841,585.91)	23,119	($36.40)	3,755	($224.12)
1003	Tongass-Chatham	($5,876,590.23)	62,435	($94.12)?		ERR
1004	Chugach	($1,124,886.30)	6,594	($170.59)	619	($1,817.26)

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Forests with TSPIRS Losses - FY 1993

Reg/Unit | Forest Name | Net Loss | Volume Harvested (MBF) | Loss Per MBF | Acres Harvested | Loss Per Acre

Forests with TSPIRS Losses - FY 1993

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($1,154,999.02)	7,623	($151.52)	767	($1,505.87)
0103	Bitterroot	($1,915,951.58)	11,927	($160.64)	1,822	($1,051.57)
0108	Custer	($523,221.97)	1,669	($313.49)	111	($4,713.71)
0109	Deerlodge	($1,218,915.11)	7,272	($167.62)	486	($2,508.06)
0110	Flathead	($860,385.33)	54,371	($15.82)	4,171	($206.28)
0111	Gallatin	($917,456.06)	10,559	($86.89)	1,134	($809.04)
0112	Helena	($998,072.78)	4,826	($206.81)	420	($2,376.36)
0115	Lewis and Clark	($280,666.36)	7,428	($37.78)	401	($699.92)
0202	Bighorn	($142,777.45)	12,041	($11.86)	859	($166.21)
0204	Grand Mesa-Unc.-Gunn.	($526,355.68)	33,646	($15.64)	4,367	($120.53)
0206	Medicine Bow	($324,618.51)	18,908	($17.17)	2,829	($114.75)
0207	Nebraska	($670,502.84)	8	($83,812.86)	0	ERR
0210	Arapaho-Roosevelt	($421,751.90)	9,673	($43.60)	800	($527.19)
0212	Pike-San Isabel	($373,994.97)	10,912	($34.27)	2,532	($147.71)
0213	San Juan	($93,958.96)	22,347	($4.20)	2,737	($34.33)
0214	Shoshone	($641,822.98)	7,197	($89.18)	709	($905.25)
0302	Carson	($1,858,049.66)	7,612	($244.09)	545	($3,409.27)
0303	Cibola	($1,052,569.40)	3,967	($265.33)	654	($1,609.43)
0304	Coconino	($2,600,216.58)	40,106	($64.83)	9,030	($287.95)
0305	Coronado	($604,617.31)	495	($1,221.45)	0	ERR
0306	Gila	($2,969,539.11)	18,649	($159.23)	5,130	($578.86)
0307	Kaibab	($1,782,734.18)	29,678	($60.07)	3,146	($566.67)
0308	Lincoln	($1,019,239.80)	4,197	($242.85)	271	($3,761.03)
0309	Prescott	($1,383,687.07)	2,939	($470.80)	182	($7,602.68)
0310	Santa Fe	($2,423,674.18)	19,035	($127.33)	1,996	($1,214.27)
0312	Tonto	($270,731.48)	7,167	($37.77)	1,637	($165.38)
0401	Ashley	($467,719.36)	15,490	($30.19)	1,350	($346.46)
0403	Bridger-Teton	($638,672.41)	17,328	($36.86)	527	($1,211.90)
0405	Caribou	($94,679.74)	9,232	($10.26)	709	($133.54)
0407	Dixie	($798,209.99)	15,607	($51.14)	5,042	($158.31)
0408	Fishlake	($155,375.72)	4,435	($35.03)	592	($262.46)
0409	Humboldt	($72,428.61)	610	($118.74)	0	ERR
0410	Manti-Lasal	($470,096.41)	4,524	($103.91)	388	($1,211.59)
0414	Sawtooth	($276,025.74)	11,553	($23.89)	2,258	($122.24)
0415	Targhee	($1,851,942.43)	22,400	($82.68)	2,310	($801.71)
0417	Toiyabe	($710,761.18)	2,578	($275.70)	0	ERR
0419	Wasatch	($154,294.09)	10,419	($14.81)	427	($361.34)
0501	Angeles	($125,628.20)	317	($396.30)	474	($265.04)
0502	Cleveland	($63,079.17)	280	($225.28)	0	ERR
0505	Klamath	($4,396,747.02)	22,736	($193.38)	1,976	($2,225.07)
0507	Los Padres	($135,849.51)	335	($405.52)	0	ERR
0508	Mendocino	($1,950,014.40)	7,271	($268.19)	214	($9,112.22)
0512	San Bernardino	($289,351.82)	4,202	($68.86)	0	ERR
0519	Lake Tahoe Basin	($730,102.80)	3,179	($229.66)	91	($8,023.11)
0605	Mt. Baker-Snoqualmie	($3,841,444.43)	20,407	($188.24)	276	($13,918.28)

Forests with TSPIRS Losses - FY 1993

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0608	Okanogan	($558,559.04)	30,268	($18.45)	5,009	($111.51)
0609	Olympic	($3,556,048.16)	18,874	($188.41)	1,007	($3,531.33)
0611	Siskiyou	($4,036,355.27)	10,666	($378.43)	589	($6,852.90)
0614	Umatilla	($412,983.44)	105,776	($3.90)	8,786	($47.00)
0616	Wallowa Whitman	($2,286,414.17)	74,767	($30.58)	20,245	($112.94)
0617	Wenatchee	($406,184.70)	58,358	($6.96)	4,448	($91.32)
0621	Colville	($2,144,552.19)	72,191	($29.71)	5,470	($392.06)
0802	Daniel Boone	($990,218.47)	38,413	($25.78)	4,938	($200.53)
0804	Cherokee	($547,031.66)	29,445	($18.58)	2,288	($239.09)
0808	George Washington	($741,500.93)	35,177	($21.08)	3,271	($226.69)
0810	Ozark-St. Francis	($432,861.91)	39,063	($11.08)	7,598	($56.97)
0811	NFS North Carolina	($1,384,357.55)	50,675	($27.32)	4,013	($344.97)
0814	Jefferson	($834,671.17)	25,353	($32.92)	2,397	($348.21)
0902	Chequamegon	($1,163,309.34)	73,919	($15.74)	9,646	($120.60)
0904	Huron Manistee	($342,353.05)	79,917	($4.28)	10,869	($31.50)
0906	Nicolet	($787,734.66)	70,380	($11.19)	13,734	($57.36)
0907	Ottawa	($693,535.66)	68,226	($10.17)	13,032	($53.22)
0908	Shawnee	($516,505.27)	4,130	($125.06)	668	($773.21)
0909	Superior	($580,932.77)	99,304	($5.85)	8,438	($68.85)
0910	Hiawatha	($325,340.08)	68,275	($4.77)	12,797	($25.42)
0911	Wayne Hoosier	($544,701.48)	2,149	($253.47)	333	($1,635.74)
0920	Green Mountain	($549,870.45)	7,730	($71.13)	1,754	($313.50)
0922	White Mountain	($651,680.75)	27,843	($23.41)	4,108	($158.64)
1002	Tongass-Stikine	($3,548,622.84)	92,617	($38.32)?		ERR
1003	Tongass-Chatham	($4,548,069.74)	85,620	($53.12)?		ERR
1004	Chugach	($701,498.68)	6,056	($115.84)	248	($2,828.62)
1005	Tongass-Ketchikan	($1,992,226.47)	147,060	($13.55)?		ERR

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Forests with TSPIRS Losses - FY 1992

Reg/Unit Forest Name Net Loss Volume Harvested (MBF) Loss Per MBF Acres Harvested Loss Per Acre

Forests with TSPIRS Losses - FY 1992

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($1,368,859.32)	6,212	($220.38)	277	($4,941.73)
0103	Bitterroot	($2,311,379.02)	9,726	($237.65)	472	($4,896.99)
0108	Custer	($1,064,924.80)	3,817	($279.00)	683	($1,559.19)
0109	Deerlodge	($1,623,266.57)	11,369	($142.78)	638	($2,544.30)
0110	Flathead	($2,000,069.46)	53,297	($37.53)	3,779	($529.26)
0111	Gallatin	($1,181,539.47)	7,443	($158.75)	1,738	($679.83)
0112	Helena	($1,587,753.29)	16,402	($96.80)	979	($1,621.81)
0115	Lewis and Clark	($925,941.68)	22,029	($42.03)	2,890	($320.40)
0116	Lolo	($604,382.52)	68,007	($8.89)	4,411	($137.02)
0117	Nezperce	($2,099,348.96)	83,899	($25.02)	3,391	($619.09)
0202	Bighorn	($311,860.05)	13,812	($22.58)	1,374	($226.97)
0204	Grand Mesa-Unc.-Gunn.	($1,713,749.40)	39,867	($42.99)	4,598	($372.72)
0206	Medicine Bow	($1,176,381.60)	34,446	($34.15)	4,849	($242.60)
0207	Nebraska	($181,359.42)	970	($186.97)	634	($286.06)
0209	Rio Grande	($97,617.13)	25,042	($3.90)	4,099	($23.81)
0210	Arapaho-Roosevelt	($793,497.05)	8,950	($88.66)	617	($1,286.06)
0211	Routt	($1,093,928.64)	22,431	($48.77)	2,927	($373.74)
0212	Pike-San Isabel	($453,696.76)	6,505	($69.75)	2,182	($207.93)
0213	San Juan	($10,289,107.66)	29,585	($347.78)	5,351	($1,922.84)
0214	Shoshone	($747,066.53)	10,227	($73.05)	1,078	($693.01)
0215	White River	($404,901.96)	26,665	($15.18)	3,743	($108.18)
0302	Carson	($1,812,018.47)	17,472	($103.71)	3,292	($550.43)
0303	Cibola	($822,624.20)	5,255	($156.54)	730	($1,126.88)
0305	Coronado	($160,624.11)	402	($399.56)	285	($563.59)
0306	Gila	($1,960,124.51)	32,697	($59.95)	9,544	($205.38)
0307	Kaibab	($3,365,393.08)	47,279	($71.18)	12,532	($268.54)
0308	Lincoln	($1,132,900.19)	2,658	($426.22)	586	($1,933.28)
0309	Prescott	($344,281.88)	4,600	($74.84)	1,404	($245.22)
0310	Santa Fe	($1,826,844.73)	15,216	($120.06)	4,337	($421.22)
0312	Tonto	($485,408.94)	6,221	($78.03)	522	($929.90)
0401	Ashley	($938,072.68)	18,822	($49.84)	3,052	($307.36)
0403	Bridger-Teton	($751,481.81)	11,550	($65.06)	189	($3,976.09)
0405	Caribou	($51,053.30)	11,606	($4.40)	1,439	($35.48)
0406	Challis	($273,337.78)	2,712	($100.79) ?		ERR
0407	Dixie	($1,644,666.64)	16,464	($99.89)	5,745	($286.28)
0408	Fishlake	($113,305.07)	4,282	($26.58)	1,148	($98.70)
0409	Humboldt	($42,897.27)	529	($81.09)	0	ERR
0410	Manti-Lasal	($409,553.47)	5,550	($73.79)	627	($653.20)
0414	Sawtooth	($583,801.94)	11,461	($50.94)	3,403	($171.56)
0415	Targhee	($1,667,296.37)	45,091	($36.98)	4,171	($399.74)
0417	Toiyabe	($456,024.31)	5,661	($80.56)	350	($1,302.93)
0418	Uinta	($135,560.03)	2,686	($50.47)	186	($728.82)
0419	Wasatch	($416,532.74)	11,747	($35.46)	1,847	($225.52)
0501	Angeles	($661,200.07)	288	($2,295.83)	225	($2,938.67)
0502	Cleveland	($249,244.86)	247	($1,009.09)	52	($4,793.17)
0505	Klamath	($2,188,561.80)	88,754	($24.66)	3,696	($592.14)
0507	Los Padres	($273,715.73)	248	($1,103.69)	0	ERR

Forests with TSPIRS Losses - FY 1992

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0508	Mendocino	($3,427,762.58)	17,831	($192.24)	0	ERR
0510	Six Rivers	($8,879,669.04)	68,608	($129.43)	1,416	($6,270.95)
0512	San Bernardino	($699,696.14)	2,829	($247.33)	1,910	($366.33)
0514	Shasta Trinity	($31,342,059.52)	115,999	($270.19)	4,065	($7,710.22)
0515	Sierra	($1,115,196.41)	85,014	($13.12)	322	($3,463.34)
0517	Tahoe	($1,202,217.95)	72,687	($16.54)	13,471	($89.24)
0519	Lake Tahoe Basin	($680,394.46)	6,075	($112.00)	1,317	($516.62)
0608	Okanogan	($2,053,051.29)	36,027	($56.99)	3,120	($658.03)
0609	Olympic	($4,040,204.34)	57,207	($70.62)	1,294	($3,122.26)
0611	Siskiyou	($2,264,442.73)	50,683	($44.68)	2,042	($1,108.93)
0616	Wallowa Whitman	($10,464,751.93)	110,554	($94.66)	13,716	($762.96)
0617	Wenatchee	($2,717,788.82)	94,465	($28.77)	7,702	($352.87)
0621	Colville	($2,409,386.64)	82,286	($29.28)	6,215	($387.67)
0802	Daniel Boone	($1,332,204.08)	38,293	($34.79)	4,256	($313.02)
0803	Chatt.-Oconee	($1,845,662.19)	57,755	($31.96)	9,609	($192.08)
0804	Cherokee	($906,771.86)	31,535	($28.75)	3,503	($258.86)
0808	George Washington	($1,336,086.03)	38,160	($35.01)	4,082	($327.31)
0809	Ouachita	($658,606.47)	76,616	($8.60)	18,570	($35.47)
0810	Ozark-St. Francis	($1,499,650.52)	32,685	($45.88)	6,305	($237.85)
0811	NFS North Carolina	($2,462,465.41)	69,717	($35.32)	5,266	($467.62)
0812	Marion-Sumter	($1,431,225.16)	72,082	($19.86)	6,079	($235.44)
0814	Jefferson	($1,397,445.88)	19,075	($73.26)	2,023	($690.78)
0902	Chequamegon	($1,491,470.54)	77,041	($19.36)	10,917	($136.62)
0903	Chippewa	($104,967.63)	91,584	($1.15)	7,734	($13.57)
0904	Huron Manistee	($948,164.24)	79,599	($11.91)	10,168	($93.25)
0905	Mark Twain	($511,828.60)	53,687	($9.55)	15,538	($32.94)
0906	Nicolet	($1,363,833.91)	81,760	($16.68)	15,842	($86.09)
0907	Ottawa	($1,505,688.01)	61,302	($24.56)	10,355	($145.41)
0908	Shawnee	($805,442.82)	4,187	($192.37)	409	($1,969.30)
0909	Superior	($1,594,852.65)	84,277	($18.92)	9,794	($162.84)
0910	Hiawatha	($1,338,145.19)	61,955	($21.60)	11,565	($115.71)
0911	Wayne-Hoosier	($535,463.40)	5,504	($97.29)	680	($787.45)
0920	Green Mountain	($857,871.42)	9,870	($86.92)	1,797	($477.39)
0922	White Mountain	($1,004,778.59)	23,244	($43.23)	3,252	($308.97)
1002	Tongass-Stikine	($3,118,996.27)	69,822	($44.67) ?		ERR
1003	Tongass-Chatham	($9,511,986.08)	112,468	($84.58) ?		ERR
1004	Chugach	($622,174.93)	2,446	($254.36)	357	($1,742.79)
1005	Tongass-Ketchikan	($10,592,631.81)	187,407	($56.52) ?		ERR

Forests with TSPIRS Losses - FY 1991

Forests with TSPIRS Losses - FY 1991

Reg/Unit Forest Name Net Loss Volume Harvested (MBF) Loss Per MBF Acres Harvested Loss Per Acre

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($1,925,045.58)	14,144	($136.10)	1,424	($1,351.86)
0103	Bitterroot	($1,747,399.43)	12,144	($143.89)	780	($2,240.26)
0108	Custer	($680,933.11)	1,859	($366.29)	639	($1,065.62)
0109	Deerlodge	($1,306,686.49)	7,136	($183.11)	763	($1,712.56)
0110	Flathead	($3,186,070.37)	48,199	($66.10)	3,654	($871.94)
0111	Gallatin	($2,374,038.86)	14,893	($159.41)	1,844	($1,287.44)
0112	Helena	($1,579,716.37)	13,554	($116.55)	1,297	($1,217.98)
0115	Lewis and Clark	($1,080,591.88)	12,742	($84.81)	914	($1,182.27)
0116	Lolo	($3,426,900.90)	52,459	($65.33)	2,764	($1,239.83)
0117	Nezperce	($3,290,602.63)	72,793	($45.20)	3,442	($956.01)
0202	Bighorn	($547,876.55)	12,209	($44.87)	906	($604.72)
0204	Grand Mesa-Unc.-Gunn.	($1,879,503.01)	72,787	($25.82)	5,774	($325.51)
0206	Medicine Bow	($1,024,759.55)	40,935	($25.03)	4,937	($207.57)
0207	Nebraska	($165,977.80)	499	($332.62)	272	($610.21)
0209	Rio Grande	($282,451.79)	23,287	($12.13)	4,578	($61.70)
0210	Arapaho-Roosevelt	($764,859.66)	7,931	($96.44)	1,624	($470.97)
0211	Routt	($1,456,764.54)	30,576	($47.64)	2,561	($568.83)
0212	Pike-San Isabel	($938,663.49)	17,778	($52.80)	2,953	($317.87)
0213	San Juan	($872,481.77)	24,463	($35.67)	3,825	($228.10)
0214	Shoshone	($672,936.15)	12,544	($53.65)	1,759	($382.57)
0215	White River	($888,276.51)	23,771	($37.37)	3,402	($261.10)
0301	Apache-Sitgreaves	($53,536.46)	73,423	($0.73)	20,330	($2.63)
0302	Carson	($1,349,798.93)	14,715	($91.73)	3,617	($373.18)
0303	Cibola	($1,052,252.75)	13,534	($77.75)	3,086	($340.98)
0305	Coronado	($167,312.30)	509	($328.71)	490	($341.45)
0306	Gila	($2,118,244.86)	19,260	($109.98)	4,721	($448.69)
0307	Kaibab	($2,725,384.39)	57,110	($47.72)	10,602	($257.06)
0308	Lincoln	($972,572.46)	6,977	($139.40)	1,164	($835.54)
0309	Prescott	($338,057.37)	5,609	($60.27)	362	($933.86)
0310	Santa Fe	($1,897,174.35)	16,805	($112.89)	2,221	($854.20)
0312	Tonto	($832,594.37)	16,681	($49.91)	16,025	($51.96)
0401	Ashley	($1,004,222.76)	20,473	($49.05)	2,851	($352.24)
0402	Boise	($56,578.41)	95,243	($0.59)	17,472	($3.24)
0403	Bridger-Teton	($936,981.49)	13,467	($69.58)	329	($2,847.97)
0405	Caribou	($317,628.69)	6,559	($48.43)	812	($391.17)
0406	Challis	($243,628.61)	4,342	($56.11) ?		ERR
0407	Dixie	($657,011.80)	21,807	($30.13)	5,496	($119.54)
0408	Fishlake	($112,478.13)	3,226	($34.87)	647	($173.85)
0409	Humboldt	($41,445.74)	1,026	($40.40)	0	ERR
0410	Manti-Lasal	($359,948.06)	3,789	($95.00)	275	($1,308.90)
0413	Salmon	($458,990.77)	14,575	($31.49) ?		ERR
0414	Sawtooth	($484,764.40)	7,591	($63.86)	1,739	($278.76)
0415	Targhee	($794,610.49)	54,325	($14.63)	5,869	($135.39)
0417	Toiyabe	($192,012.28)	3,814	($50.34)	0	ERR
0419	Wasatch	($421,352.38)	11,273	($37.38)	1,568	($268.72)

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Forests with TSPIRS Losses - FY 1991

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0501	Angeles	($126,371.77)	201	($628.72)	245	($515.80)
0502	Cleveland	($227,018.43)	271	($837.71)	149	($1,523.61)
0504	Inyo	($328,174.59)	4,726	($69.44)	0	ERR
0505	Klamath	($7,189,899.76)	105,545	($68.12)	4,568	($1,573.97)
0507	Los Padres	($219,095.64)	197	($1,112.16)	51	($4,295.99)
0508	Mendocino	($263,774.97)	27,023	($9.76)	833	($316.68)
0512	San Bernardino	($677,584.42)	3,759	($180.26)	1,007	($672.87)
0513	Sequoia	($1,244,822.03)	69,892	($17.81)	14,155	($87.94)
0515	Sierra	($846,348.60)	96,976	($8.73)	1,405	($602.38)
0519	Lake Tahoe Basin	($354,555.68)	2,830	($125.28)	780	($454.56)
0608	Okanogan	($1,284,968.92)	43,979	($29.22)	4,981	($257.97)
0616	Wallowa Whitman	($4,638,623.59)	146,814	($31.60)	14,382	($322.53)
0621	Colville	($272,618.83)	114,073	($2.39)	10,766	($25.32)
0802	Daniel Boone	($1,330,254.52)	39,632	($33.57)	4,957	($268.36)
0803	Chatt.-Oconee	($575,070.93)	52,115	($11.03)	7,968	($72.17)
0804	Cherokee	($1,139,392.20)	25,073	($45.44)	2,985	($381.71)
0808	George Washington	($1,349,918.60)	36,615	($36.87)	3,396	($397.50)
0809	Ouachita	($1,091,182.16)	119,589	($9.12)	21,370	($51.06)
0810	Ozark-St. Francis	($1,019,542.20)	49,633	($20.54)	9,515	($107.15)
0811	NFS North Carolina	($2,897,785.13)	55,996	($51.75)	5,419	($534.75)
0812	Marion-Sumter	($617,971.30)	74,417	($8.30)	6,180	($100.00)
0814	Jefferson	($1,265,875.15)	32,826	($38.56)	2,881	($439.39)
0902	Chequamegon	($1,576,219.55)	67,439	($23.37)	7,373	($213.78)
0903	Chippewa	($617,278.07)	82,381	($7.49)	8,221	($75.09)
0904	Huron Manistee	($733,781.74)	85,881	($8.54)	11,603	($63.24)
0905	Mark Twain	($403,472.77)	50,506	($7.99)	13,882	($29.06)
0906	Nicolet	($1,479,477.05)	65,241	($22.68)	11,780	($125.59)
0907	Ottawa	($1,209,647.62)	64,063	($18.88)	12,901	($93.76)
0908	Shawnee	($931,395.95)	4,115	($226.34)	578	($1,611.41)
0909	Superior	($1,581,314.29)	76,787	($20.59)	9,060	($174.54)
0910	Hiawatha	($1,418,425.72)	46,990	($30.19)	8,950	($158.48)
0911	Wayne-Hoosier	($292,626.56)	6,350	($46.08)	720	($406.43)
0920	Green Mountain	($855,465.91)	11,300	($75.70)	2,968	($288.23)
0922	White Mountain	($772,987.02)	31,013	($24.92)	4,001	($193.20)
1002	Tongass-Stikine	($2,284,802.11)	67,150	($33.73) ?		ERR
1003	Tongass-Chatham	($4,950,401.13)	111,324	($44.47) ?		ERR
1004	Chugach	($267,058.34)	941	($283.80)	187	($1,428.12)

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Summary of Forest Losses for FY 1991-1995

Summary of Forest Losses for FY 1991-1995

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0102	Beaverhead	($5,644,241.33)	46,107	-122.416	5,510	($1,024.36)
0103	Bitterroot	($8,022,703.90)	44,872	-178.791	4,488	($1,787.59)
0108	Custer	($3,201,273.34)	15,003	-213.376	2,775	($1,153.61)
0109	Deerlodge	($4,393,577.08)	33,727	-130.269	2,563	($1,714.23)
0110	Flathead	($10,000,514.30)	198,152	-50.4689	14,861	($672.94)
0111	Gallatin	($6,098,082.12)	48,627	-125.405	7,574	($805.13)
0112	Helena	($4,191,852.26)	44,027	-95.2109	2,956	($1,418.08)
0115	Lewis and Clark	($2,389,453.68)	67,733	-35.2775	6,839	($349.39)
0116	Lolo	($4,598,295.10)	144,530	-31.8155	10,225	($449.71)
0117	Nezperce	($7,172,232.44)	195,525	-36.6819	8,296	($864.54)
0202	Bighorn	($1,449,750.85)	45,179	-32.089	4,761	($304.51)
0204	Grand Mesa-Unc.-Gunn.	($4,399,230.00)	217,631	-20.2142	22,660	($194.14)
0206	Medicine Bow	($3,314,813.22)	102,046	-32.4835	13,728	($241.46)
0207	Nebraska	($1,053,487.92)	1,486	-708.942	906	($1,162.79)
0209	Rio Grande	($380,068.92)	48,329	-7.8642	8,677	($43.80)
0210	Arapaho-Roosevelt	($2,316,734.42)	28,797	-80.4505	3,204	($723.08)
0211	Routt	($2,550,693.18)	53,007	-48.1199	5,488	($464.78)
0212	Pike-San Isabel	($1,885,540.80)	46,893	-40.2094	10,145	($185.86)
0213	San Juan	($12,051,047.31)	107,708	-111.886	14,950	($806.09)
0214	Shoshone	($2,829,864.37)	42,659	-66.3369	4,132	($684.87)
0215	White River	($1,635,958.87)	86,129	-18.9943	11,679	($140.08)
0301	Apache-Sitgreaves	($2,078,589.42)	100,369	-20.7095	24,316	($85.48)
0302	Carson	($7,938,711.88)	50,174	-158.224	9,065	($875.75)
0303	Cibola	($4,236,152.95)	30,881	-137.177	5,466	($775.00)
0304	Coconino	($4,091,230.19)	89,184	-45.874	19,968	($204.89)
0305	Coronado	($1,319,153.48)	1,760	-749.519	775	($1,702.13)
0306	Gila	($9,999,328.00)	91,643	-109.112	20,396	($490.26)
0307	Kaibab	($8,653,297.20)	141,773	-61.0363	27,047	($319.94)
0308	Lincoln	($4,314,148.53)	20,782	-207.591	3,328	($1,296.32)
0309	Prescott	($2,593,988.42)	20,603	-125.903	2,507	($1,034.70)
0310	Santa Fe	($9,851,243.27)	64,047	-153.813	10,286	($957.73)
0312	Tonto	($2,159,048.01)	35,346	-61.0832	19,526	($110.57)
0401	Ashley	($2,983,648.07)	83,658	-35.6648	9,094	($328.09)
0402	Boise	($56,578.41)	95,243	-0.59404	17,472	($3.24)
0403	Bridger-Teton	($2,894,899.89)	71,730	-40.3583	1,972	($1,468.00)
0405	Caribou	($623,903.26)	35,136	-17.7568	3,438	($181.47)
0406	Challis	($617,192.48)	12,294	-50.2027	0	ERR
0407	Dixie	($4,247,898.17)	61,761	-68.7796	17,426	($243.77)
0408	Fishlake	($976,949.08)	17,308	-56.4449	2,819	($346.56)
0409	Humboldt	($357,070.23)	3,349	-106.62	0	ERR
0410	Manti-Lasal	($2,492,199.43)	20,926	-119.096	1,578	($1,579.34)
0413	Salmon	($2,156,726.24)	36,965	-58.3451	0	ERR
0414	Sawtooth	($1,623,931.15)	39,693	-40.9123	7,847	($206.95)
0415	Targhee	($6,780,330.99)	148,548	-45.644	13,896	($487.93)
0417	Toiyabe	($2,102,023.24)	14,548	-144.489	350	($6,005.78)

Summary of Forest Losses for FY 1991-1995

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0418	Uinta	($135,560 03)	2,686	-50.4691	186	($728.82)
0419	Wasatch	($1,431,957.51)	35,627	-40 193	4,087	($350.37)
0501	Angeles	($1,919,081.14)	1,146	-1674.59	1,354	($1,417 34)
0502	Cleveland	($775,284.04)	1,195	-648 773	201	($3,857.13)
0503	Eldorado	($4,525,868.99)	13,975	-323.84	120	($37,713 91)
0504	Inyo	($328,174.59)	4,726	-69.4402	0	ERR
0505	Klamath	($15,832,735.15)	277,140	-57.129	15,179	($1,043.07)
0507	Los Padres	($1,030,746.22)	1,252	-823.28	51	($20,210.71)
0508	Mendocino	($9,862,331 85)	59,001	-167.155	1,362	($7,241 07)
0510	Six Rivers	($10,451,209.12)	81,649	-128.002	1,416	($7,380.80)
0512	San Bernardino	($2,726,331.32)	15,537	-175.473	2,967	($918 88)
0513	Sequoia	($1,705,800.97)	86,872	-19.6358	28,392	($60.08)
0514	Shasta Trinity	($31,342,059.52)	115,999	-270 192	4,065	($7,710.22)
0515	Sierra	($2,239,945.11)	202,700	-11.0505	2,220	($1,008 98)
0517	Tahoe	($2,891,749.75)	115,668	-25.0004	20,778	($139.17)
0519	Lake Tahoe Basin	($2,308,278.73)	27,779	-83.0944	7,863	($293 56)
0605	Mt. Baker-Snoqualmie	($6,086,803 34)	73,493	-82.8215	1,065	($5,715.31)
0606	Mt. Hood	($1,599,454.62)	28,089	-56.9424	2,030	($787.91)
0608	Okanogan	($3,896,579.25)	110,274	-35.3354	13,110	($297.22)
0609	Olympic	($16,223,761.83)	97,357	-166.642	3,416	($4,749 34)
0611	Siskiyou	($10,663,083.36)	90,035	-118.433	3,831	($2,783 37)
0612	Siuslaw	($1,488,382.78)	15,169	-98.12	576	($2,584.00)
0614	Umatilla	($5,952,828.99)	168,199	-35.3916	17,510	($339 97)
0616	Wallowa Whitman	($28,296,008.07)	423,042	-66.887	59.523	($475 38)
0617	Wenatchee	($11,128,045.69)	203,263	-54.747	18,230	($885.65)
0620	Winema	($806,457.94)	35,497	-22.719	3,300	($244 38)
0621	Colville	($6,500,844.83)	351,869	-18.4752	29,618	($219.49)
0802	Daniel Boone	($6,036,442.40)	149,312	-40.4284	15,943	($378 63)
0803	Chatt.-Oconee	($2,972,005.65)	178,751	-16.6265	30,256	($98.23)
0804	Cherokee	($3,730,227.79)	124,819	-29.8851	11,729	($318.03)
0805	NFS Florida	($268,479.18)	58,448	-4.59347	6,769	($39.66)
0808	Geroge Washington	($3,428,699.39)	147,183	-23.2955	13,742	($249 51)
0809	Ouachita	($1,749,788.63)	196,205	-8 91817	39,940	($43 81)
0810	Ozark-St. Francis	($2,952,054 63)	121,381	-24.3206	23,418	($126.06)
0811	NFS North Carolina	($9,605,694.58)	251,104	-38.2538	22,899	($419.48)
0812	Marion-Sumter	($2,049,196.46)	146,499	-13.9878	12,259	($167.16)
0814	Jefferson	($4,863,654.80)	119,582	-40.6721	11.454	($424 63)
0902	Chequamegon	($5,448,922.96)	359,938	-15.1385	45,231	($120.47)
0903	Chippewa	($722,245.70)	173,965	-4.15167	15,956	($45.27)
0904	Huron Manistee	($2,024,299.03)	245,397	-8.24908	32,640	($62.02)
0905	Mark Twain	($915,301 37)	104,093	-8.79311	29.420	($31.11)
0906	Nicolet	($4,500,395.32)	350,957	-12.8232	63,101	($71.32)
0907	Ottawa	($3,953,926.01)	334,295	-11.8277	62,553	($63.21)
0908	Shawnee	($3,186,466.13)	17,893	-178.085	2,197	($1,450.37)
0909	Superior	($4,265,885.22)	433,608	-9 83811	41,930	($101.74)
0910	Hiawatha	($3,222,088 82)	246,279	-13.0831	44,319	($72 70)
0911	Wayne-Hoosier	($1,372,791.44)	14,003	-98.0355	1,733	($792.15)
0912	Hoosier	($302,086.35)	1,418	-213 037	66	($4,577 07)
0914	Wayne	($771,533.12)	2,723	-283 339	134	($5,757.71)
0920	Green Mountain	($3,222,881.83)	38,281	-84.1849	8,899	($362.14)

Summary of Forest Losses for FY 1991-1995

Reg/Unit	Forest Name	Net Loss	Volume Harvested (MBF)	Loss Per MBF	Acres Harvested	Loss Per Acre
0822	White Mountain	($4,327,290.09)	125,132	-34.5818	17,268	($250.60)
1002	Tongass-Stikine	($13,172,081.02)	257,704	-51.1132	0	ERR
1003	Tongass-Chatham	($28,709,733.38)	402,574	-71.3154	0	ERR
1004	Chugach	($3,311,992.41)	17,840	-185.65	1,580	($2,096.20)
1005	Tongass-Ketchikan	($12,584,858.28)	334,467	-37.6266	0	ERR

NOTES:

1. Many of the forests listed did not incur losses in every year FY 1991-FY1995. The summary includes only those years losses did occur, so does not include the gains these forests incurred during this time period.

2. Only FY 1991 and 1992 include Payment to States. After FY 1992 the Forest Service determined it was improper to include Payment to States in the net gain or loss.

3. Regional and Washington office costs are not included since this is improper under a responsibility reporting system and no such allocation method exists.

4. Loss per MBF is calculated by dividing the Net Loss by the Volume Harvested. Volume and dollars in years of gains are not included.

5. Loss per Acre is calculated by dividing the Net Loss by the Acres Harvested.

6. Losses include any Extraordinary Losses incurred for each Fiscal Year.

7. Errors (ERR) in "Loss Per Acre" Column reflect the fact that some forests did not report "Acres Harvested" in certain years.

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volume cut in MBF, the loss per MBF, the acres cut, and the loss per acres for FY 1991-1995. The previous years requested (FY 1988-1990) have not been included. The records for these years are available in hard copy only, and can not be prepared within the time cosntraints.

There are no Regional and Washington office costs included in these spreadsheets per the reasons detailed in the response to questions 450 and 452. Since we did include the 25% Payment to States in the FY 1991 and 1992 reports, those costs are included for those years. They are not, however, included in the FY 1993-1995 reports.

454. Question: In the FY 1985 Hearing at page 666 the Forest Service provided a table listing timber sale receipts and costs by Region and account categories, and the ratio of receipts to costs for FY 1983. Provide a similar table for FY 1995. Revise 1983, and for 1995, to list county payment and pro rata Washington office costs for each Region. Show net returns after their deduction. How does the 1995 financial performance compare with 1983? Explain improvement or regressions?

Answer: A table for FY 1995 similar to the one described for FY 1983, would take considerable time and effort to produce. Some portions would be impossible to completely recreate. The agency financial records are the source for the 1983 table. TSPIRS data is accrual based data while the agency financial records are obligation based. Therefore, TSPIRS could not be used to compare to 1983 because of differences in the basis of measurement for the costs included. The accounting for Timber Support from other resources represents detailed data that is no longer a part of budget and accounting records and would have to be recreated at the field level for FY 1995. While the table could be revised to include payments to states, substantial research would be needed to locate background information for these 13 year old records. In addition, we feel that comparatively, it is inappropriate to include these payments as a timber sale program cost. There is no allocation method currently available to equitably allocate Washington Office costs to the regions.

GRAZING

For each of the 11 Western States, and in total, provide:

455. Question: For cattle and sheep separately show the number of animals and the number in AUM's, and the same for the National Forests for FY 1995. What percent of AUM's does the Forest Service provide in each State and in total?

Answer: We are supplying a copy of the Annual Grazing Statistical Summary for 1994. The requested information is displayed by National, Regional, and State totals and individually. We do not sort this information by individual national forest.

The 1995 Annual Grazing Statistical Summary is currently at the printers and we will supply a copy of that document when we receive it.

456. Question: What are the number of acres under grazing permits and their AUM's in each Western State?

Answer: We are supplying a copy of a data table which displays the number of acres in grazing allotments for each State. The number of head months of grazing are displayed in Table 30 of the Report of the Forest Service which is included with these questions.

457. Question: How many acres and AUM's are in Wilderness, compared to other areas?

Answer: We do not collect this information.

458. Question: What are the average number of acres per AUM in Wilderness and, non Wilderness?

Answer: We do not collect this information.

459. Question: There are several definitions of the amount of forage in an AUM. What does the Forest Service use. Why?

Answer: The definition the Forest Service uses for an Animal Unit Month (AUM) is the amount of air dry forage required to support a 1000 pound animal for 30 days. This is the accepted standard definition. For billing purposes we use the Head Month (HM), which is one months occupancy and use by an adult animal.

460. Question: What is the current fee per AUM? Based on the average number of acres per AUM, what are the gross receipts per acre that are county payments, transferred to the Range Fund, and remaining in the National Forest Fund to offset appropriations used for range programs?

Answer: In the 16 western states and national grasslands in CA, OR, and ID, the fee is $1.35 per head month for cattle and horses and $0.27 per head month for sheep and goats.

Averages mean very little in calculating returns per acre due to extreme variability in stocking rates. We do not determine return per acre nor do we separate program costs related to resource stewardship from those related to managing grazing.

Of all grazing fees collected in the 16 western states, 100% is deposited in the treasury. Of that, 25% is returned to the national forest where collected for range improvements, 25% is returned to the region of origin for the regional forester's discretionary distribution for range improvements. This 50% make up the Range Betterment Funds and represent an appropriations authorization which has usually, but not always been made available. Twenty-five (25) percent is returned to the state of origin for distribution to the county where collected, and 25% remains in the treasury.

461. Question: What were the appropriations the last 3 years for all costs

associated with operating the range program? Express in total dollars and per AUM. How do receipts remaining in the National Forest Fund after allocations to Range Improvement and County Payments compare with your grazing costs?

Answer:	Appropriation (millions)	AUMs permitted (millions)	Receipts (millions $)
FY 1993	44.4	9.6	10.5
FY 1994	44.1	9.3	11.1
FY 1995	18.5	9.3	8.9

Above are the total appropriations and permitted number of AUMs for the past three years. It would be an over simplification to divide the appropriation by the AUMs to get the "cost per AUM to the program". This would require an in depth financial analysis such as was done for the 1992 update of the 1986 Grazing Fee Review and Evaluation. The appropriation contains funds for noxious weed management, wild horse and burro management, range improvements, range stewardship activities, range support to other program areas, etc. In addition, bills for collection are prepared based on authorized head months (HMs) of grazing and not permitted AUMs. The figures for authorized HMs would be about 10% lower than those for permitted AUMs.

We have not isolated grazing costs since the 1992 update to the 1986 Grazing Fee Review and Evaluation. A copy of the update is submitted with this report to your office and represents the most recent information in this area.

462. Question: There are other food sources used for cattle and sheep? What are the principal ones? How does their cost on an AUM equivalent basis compare with the cost of a month's grazing?

Answer: We do not regularly analyze the costs of alternate forage for permitted livestock. However, pursuant to a directive in the Conference Report on the FY 1992 Interior and Related Agencies Appropriations Act, the Secretaries of Agriculture and Interior prepared an update of the 1986 Grazing Fee Review and Evaluation, Final Report, dated April 30, 1992. This report contains the most recent information we have on alternate forage sources. Copies of this report were supplied to the Chairman of the Subcommittee on Interior and Related Agencies Appropriations, on May 7, 1992.

463. Question: What are the current charges for an AUM on State lands and private lands?

Answer: The Forest Service does not normally maintain information on lease rates per AUM for State-owned or private rangelands. The most recent information the agency has on these rates is displayed in the April 30, 1992, Grazing Fee Review and Evaluation Update of the 1986 Final Report. Copies of this report were supplied to the Chairman of the Subcommittee on Interior and Related Agencies Appropriations, on

May 7, 1992.

ROADS

For each Forest, Region and in total provide:

464. Question: The number of system miles by original source of construction funding?

Answer: The reported total system mileage at the end of FY 1995 is 377,800 miles. However, the original source of funding of a road has never been tracked by the Forest Service, therefore this data in not available.

465. Question: The number of miles open and closed? The number of closed miles that was built for timber access?

Answer: Miles of road open and closed change as management needs for access dictate. We do not track this, however, for a typical or representative forest with a "large" timber program on any given day during the field season we would find road system use to be approximately as follows:

Open to All Traffic:

- 77% to 79% - Uses include timber, recreation, FS administrative traffic and other uses. Only 30% to 40% of this part of the system will be receiving timber traffic at any one time.

Open to Timber Traffic Only:

- 1% to 3% - Roads are also used by FS administrative vehicles. These roads are almost always local roads that are not considered safe for mixed timber and public traffic.

Closed to all Motorized Use:

- 20% - Roads are closed to highway vehicle use to protect the environment, natural resources, or the public, and to reduce maintenance costs. Closed roads cannot be used by Forest Service administrative vehicles without specific authorization. However they are open to off-highway recreation uses such as hiking, mountain bikers and some may be open to small, all-terrain vehicles.

No information has been kept by road on original source of funding. However, the majority of roads on the Forest Development Road System were originally constructed for timber management purposes.

466. Question: The number of miles by type and date of initial construction, before 1950, and by decade, 1950-1959, etc.

Answer: The information requestion in this question, miles of road by type and initial construction before 1959, is not tracked and therefore not available for reporting.

467. Question: What has been your experience on the number of years after initial construction that a road requires reconstruction? Does this differ for roads built for timber access versus roads built for other purposer?

Answer: Roads constructed by purchasers are designed and constructed as single entry facilities. They are placed in stable condition, with respect to drainage, at the end of the sale. Surfacing is generally depleted during the sale and reconstruction is often required prior to subsequent entries. Roads constructed from appropriated funds and intended to be part of our permanent road system are designed for a 20 year life. For these roads the resources to be served by the road are not a consideration with respect to design life.

468. Question: What has been your experience on resistance to erosion and other resource degradation based on the initial purpose a road was built to serve?

Answer: Environmental concerns are one of the key elements of Forest Service road design. All system roads are designed to operate without degrading the resources. The resistance to erosion or potential for resource degradation is dependent on site conditions.

469. Question: What has been your experience on restricting use on times when the road is likely to suffer damage? How many miles are under such restriction?

Answer: Forest road management plans do restrict road use at certain times of the year. Use restrictions are for resource management purposes, such as wildlife habitat protection, as well as for protection of the road itself from user induced damage. In general National Forest road systems are managed as open, not closed systems, and user tolerance for gated roads is low especially where use by the public has been established before closure. Road closures are not always honored by the public regardless of the reason posted for the closure.

Closing roads does protect them from user damage but the need to protect the road has to be balanced against the cost and time consumed in enforcing the closure. With continuing downsizing of our workforce we do not have the resources to implement and enforce the amount of closures that would be needed to prevent all damage from users, nor would the public tolerate it. Information on miles of road closed or restricted is not currently tracked at the regional or national levels.

470. Question: What has been your experience on the level and frequency of maintenance and road condition and road condition and longevity?

Answer: Each road has one of five maintenance levels assigned to it which determines the maintenance activities to be performed on the road and the frequency of those activities. In general a fully maintained road means a road that is stable, has well maintained drainage, with adequate surfacing and safe for the intended traffic.

Such a road should require reconstruction only if changing use requires a change in the road standard. The frequency of maintenance depends on a number of factors including raod standard, level of use, location, weather, etc. When budget considerations prevent full maintenance, priority is placed on first maintaining the drainage and road template. However, given those priorities we are falling behind in needed maintenance.

471. Question: Have the road maintenance funds in the budget for each of the last 3 years been adequate to maintain the system in sound condition? If not, what level of funding would be needed to do so? Also, would a change in road closure levels be helpful?

Answer: We are currently maintaining the road system in a safe condition. Please see question 154 for a discussion of the effects of inadequate road maintenance funding. We have never received a level of funding needed to meet all maintenance needs on our road system. Road closures are made based on the judgement of the resource manager when unacceptable damage is occurring. In many instances the roads being closed are old roads, often underdesigned or built in poor locations. For these roads, reconstruction or obliteration is required, and temporary closures only provide a temporary answer.

472. Question: Describe the principal 1995-1996 road damage situations, their cause, their severity, and impact on streams and fisheries?

Answer: The damage sustained varied over a wide range of conditions from surface erosion to complete loss of road segments due to flooding, from minor erosion at culverts to loss of major culverts along with the fill around them. In addition to landslides, there were also fill failures including slumps, slips, and total loss of fill sections. Failure occurred where the runoff exceeded the 25-year flood design capacity of the facility. Heavy rainfall combined with snowpack melt saturated the soils creating fill failures and landslides. Sediment and flood debris impacts streams and fisheries but it is difficult to separate damage from road prism materials from that caused by hillslope, sheet, and steam bank erosion. The full extent of damage from this winters storms is still not known.

473. Question: For new roads designed to access timber that are planned in FY 1997, using either timber purchaser or appropriated fund financing, how many miles are planned that will access timber on Forests where the GAO study showed that the timber program for FY 1992-1994 lost in excess of $250 per acre cut? What is the site rating of the lands proposed to be accessed? What were losses per acre cut and what is the probable financial outcome for sales made if these roads are built? What is the estimated cost to engineer and construct these roads? Why do you plan to continue money-losing sales?

Answer: The information being requested is not available. Although the amount of timber volume to be produced in fiscal year 1997 is known, the road miles, locations and site ratings are not determined until environmental assessments and preferred alternatives are identified. The production and completion dates of these assessments varies across the National Forest System. As such, the probable financial outcome and costs to engineer and construct the roads cannot be determined at this time.

The Forest Service manages forest resources for many purposes other than timber production. Often, the most cost-effective tool for some management objectives is a timber sale. Some of these objectives include vegetative treatments for wildlife habitat improvements or fire hazard reduction in high-use recreation areas. Thus, even in circumstances where the sale itself might not have a positive cash flow, considering timber cost and value alone, the needs of other resources are often addressed by implementing vegetative treatments through a timber sale.

FISH AND STREAMS

474. Question: How many miles of fish-bearing streams and rivers are on the National Forests?

Answer: Our most recent data indicate there are 196,744 miles of fish-bearing streams and rivers on National Forest System lands.

475. Question: How many miles do you rate as in critical condition?

Answer: Stream habitat conditions are reported in one of four categories:

1) habitats for which no specific objectives have been established.

2) habitats for which objectives have been established, but for which there is inadequate inventory information to rate their condition against those objectives.

3) habitats for which objectives have been established, and for which current inventories indicate they meet or exceed those objectives.

4) habitats for which objectives have been established, and for which current inventories indicate they do not meet those objectives.

The following table summarizes conditions reported by the National Forests in 1994, for inland warmwater, inland coldwater, and anadromous fish producing streams. (Note: the sum of inland warmwater, inland coldwater, and anadromous fish stream miles exceeds "total" National Forest System stream miles, because some streams produce both inland coldwater and anadromous fish resources.)

	Miles of Stream		
Habitat Conditions	Warmwater	Coldwater	Anadromous
No Objectives	4,238	32,325	5,935

Inadequate Inventory	8,469	56,934	9,789
Meet or Exceed	5,132	61,795	19,431
Do Not Meet	639	29,430	6,024
TOTAL	18,478	180,484	41,179

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476. Question: What are the causes for their current condition?

Answer: Degradation of fish habitats has occurred on all land ownerships in the United States. The reasons for decline of National Forest System aquatic habitat conditions vary by geographic area, and have been influenced by activities both on and off the National Forests. Historically, changes in habitat conditions have come from forest practices, grazing, mining, road construction, agriculture, and urbanization.

The principal types of habitat change include:

-- Impaired Water Quality: including temperature, sedimentation, nutrient levels, and the presence of toxic substances.

-- Water Quantity Changes: including changes in amount and/or timing due to water diversion or modification of vegetative patterns.

-- Decreased Habitat Complexity: including structural elements such as large wood, bed roughness, and channel features such as large pools and width/depth ratio, which reflect changes in delivery rates and channel transportation capabilities for water, sediment and large structural elements.

477. Question: What actions will be taken in 1997 to correct any adverse situation?

Answer: A variety of activities will be implemented to restore the productivity of national forest streams. Project activities will be used to modify environmental features such as water depth and velocity, hiding cover, stream bed materials, water chemistry, community composition, sediment delivery, and food production.

Examples of planned restoration activities include:

-- Reducing sedimentation and streambank erosion through structural and non-structural instream, riparian, and upland treatments - including cooperative funding for modification or obliteration of Forest roads to meet aquatic resource objectives;

-- Placing boulders, trees, and other structures to create pools, provide hiding cover, or accumulate spawning gravel;

-- Removing or modifying man-made barriers to fish allowing free movement for spawning, rearing, and other needs;

-- Improving productivity of aquatic habitats through introduction of neutralizing agents or fertilizer;

-- Removing or stocking aquatic species in cooperation with State fish and wildlife management agencies to restore fish resources following environmental changes.

It is important to note that these restoration activities are funded from a variety of sources, including inland and anadromous fish habitat management and watershed improvement.

RECREATION

478. Question: What are the trends in various types of outdoor recreation on the National Forests?

Answer: In addition to the continued rise in traditional forms of recreation such as camping, fishing, hiking and picnicing, the 1990's have ushered in new trends in recreation. These new trends include mountain-biking, skiing, wildlife viewing, and eco-tourism. Educational opportunities, especially interpretation of natural and cultural phenomena and special places to learn about the environment are of particular note. In addition, more people are seeking volunteer opportunities to participate in resource management. Visitors themselves are also changing. They now include more senior citizens, people of diverse ethnic backgrounds, urban dwellers and people of all physical abilities.

479. Question: What are the levels of use and what are the trends?

Answer: Recreational use is at an all time high, and RPA projections indicate that use will increase over 50 percent by 2040. In FY 1994, the Forest Service hosted over 835 million visits to the national forest. Actual visitor use levels are detailed in the answer to Question 170.

480. Question: Proposals are made to charge for some use not heretofore charged and to increase fees. What are your views on the most cost-effective way to charge for recreation? What types of recreation should have a charge?

Answer: The purpose of the FY1996 Fee Demonstration Pilot is to test various types of fee collections and assess fees for a variety of recreation uses, facilities, and services. Our obligation will be to track these issues, audit the publics acceptance of such fees, and report back to Congress what we've learned.

Field personnel and customer feedback indicate that fees which are simple, easy to administer, and relate to a direct service or benefit at the site will receive greater acceptance. For example, an annual recreation pass for a recreation area, complex and/or forest would be much easier to administer than a fee being assessed at each specific site of a recreation use. Customers would rather pay the associated costs once, rather than feel as though they are being charged over and over again. Customers have also clearly said that they do not mind paying a fee if they can ensure that the fee will be used to provide and improve the services/facilities of their favorite sites.

REFORESTATION

481. Question: How many acres are in need of reforestation? Show by Forest and by the standard growth ratings used in Forest surveys? Identify by Forests GAO identified as losing money, and by profitable Forests.

Answer: The most recent tabulation of reforestation needs shows 842,491 acres in need of reforestation treatment as of October 1, 1995. This represents a two-year workload at present rates of accomplishment, and a decline of approximately 6 percent from the level reported in the previous year (898,691 acres).

A tabular report summarizing reforestation needs by State, forest, and productivity class is annually compiled and submitted to Congress in the Report of the Forest Service. Reforestation needs are displayed in this manner on pages 122 through 127 of the fiscal year 1992 report, pages 110 through 115 of the fiscal year 1993 report, and pages 97 through 102 of the fiscal year 1994 report. We have enclosed copies of these excerpts for your convenience and use in comparing this data with the net results data included in the GAO report referenced in your question.

482. Question: What has been the actual total cost per acre, including the cost range, for artificial regeneration, natural regeneration and regeneration by seeding for the work done up to certification?

Answer: Reforestation costs vary considerably by regeneration method and by virtue of local characteristics and site conditions. We tabulate the average cost of reforestation treatments by fund type in order to track our expenditures. Regional averages for fiscal year 1995 provide a good indication of the considerable range of these costs. They range from $23.18 per acre for K-V reforestation in Region 10, to $697.18 per acre for K-V reforestation in Region 5. The average cost of reforestation work in fiscal year 1995 was $293.08 per acre. These averages are derived by dividing total reforestation expenditures (including the costs of certification exams) by reforestation accomplishment.

Because of limitations in our central accounting system, we do not have the capability to track reforestation expenditures by regeneration method, nor do we routinely track expenditures for discrete work activities such as regeneration surveys and certification examinations. Generally speaking, lower-than-average costs ($20 to $300 per acre) are reflected by regions which can rely predominantly upon natural regeneration methods to achieve reforestation objectives. By contrast, higher-than-average costs (in excess of $300 per acre) are incurred in regions which must rely predominantly upon artificial regeneration methods for success. Our regeneration efforts on suitable lands are guided primarily by

Table 18–Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total
	0-49	50-84	85-119	120+	acres
Alabama					
NFs in Alabama (subtotal)	22	603	388	523	1,536
Alaska					
Chugach	0	147	0	0	147
Tongass-Chatham	198	839	3,650	8,336	13,023
Tongass-Ketchikan	66	262	776	15,678	16,782
Tongass-Stikine	83	156	618	8,544	9,401
Subtotal	347	1,404	5,044	32,558	39,353
Arizona					
Apache-Sitgreaves	3,671	5,362	190	0	9,223
Coconino	6,995	3,595	0	0	10,590
Coronado	0	8	0	0	8
Kaibab	5,703	2,857	0	0	8,560
Prescott	97	9	0	0	106
Tonto	1,053	15	0	0	1,068
Subtotal	17,519	11,846	190	0	29,555
Arkansas					
Ouachita	40	390	1,197	145	1,772
Ozark-St. Francis	75	3,821	1,176	77	5,149
Subtotal	115	4,211	2,373	222	6,921
California					
Angeles	199	476	277	0	952
Cleveland	0	122	0	0	122
Eldorado	0	124	2,710	13,258	16,092
Inyo	0	21	316	0	337
Klamath	522	3,221	3,813	2,648	10,204
Lake Tahoe Basin	0	47	1,454	10	1,511
Lassen	17	8,968	4,230	3,103	16,318
Los Padres	0	21	5	0	26
Mendocino	121	1,565	1,300	819	3,805
Modoc	0	1,782	1,740	550	4,072
Plumas	0	985	9,041	1,663	11,689
Rogue River	0	202	0	0	202
San Bernardino	346	389	29	0	764
Sequoia	18	280	726	4,343	5,367
Shasta	0	304	1,181	1,044	2,529
Sierra	60	624	1,706	2,246	4,636
Siskiyou	0	0	0	0	0
Six Rivers	0	4	1,024	820	1,848
Stanislaus	2,165	12,793	26,900	20,567	62,425
Tahoe	0	962	5,413	3,218	9,593

See footnotes at end of table.

Table 18—Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	 50-84	 85-119	 120+	Total acres
California (continued)					
Toiyabe	423	1,240	0	0	1,663
Trinity	2	2,220	904	1,205	4,331
Subtotal	3,873	36,350	62,769	55,494	158,486
Colorado					
Arapaho and Roosevelt	7,253	210	0	0	7,463
Grand Mesa, Uncompahgre, and Gunnison	7,417	2,830	154	34	10,435
Manti-Lasal	80	0	0	0	80
Pike and San Isabel	1,989	734	0	0	2,723
Rio Grande	3,551	3,320	155	0	7,026
Routt	5,482	1,874	170	0	7,526
San Juan	1,797	2,372	215	0	4,384
White River	1,118	994	49	0	2,161
Subtotal	28,687	12,334	743	34	41,798
Florida					
NFs in Florida (subtotal)	93	53	790	1,456	2,392
Georgia					
Chattahoochee and Oconee (subtotal)	0	13	1,536	148	1,697
Idaho					
Boise	2,895	20,406	4,636	2,457	30,394
Caribou	0	279	28	0	307
Challis	0	298	0	0	298
Clearwater	3,234	245	2,160	2,976	8,615
Idaho Panhandle	5,893	2,366	6,194	5,333	19,786
Kootenai	0	6	10	0	16
Nez Perce	1,659	1,019	5,075	1,834	9,587
Payette	1,048	6,345	2,595	0	9,988
Salmon	7,484	373	0	0	7,857
Sawtooth	27	113	0	0	140
Targhee	805	12,025	0	56	12,886
Subtotal	23,045	43,475	20,698	12,656	99,874
Illinois					
Shawnee (subtotal)	0	300	298	13	611
Indiana					
Hoosier (subtotal)	0	0	1,147	590	1,737

See footnotes at end of table.

Table 18–Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total acres
	0-49	50-84	85-119	120+	
Kentucky					
Daniel Boone (subtotal)	0	899	2,509	237	3,645
Louisiana					
Kisatchie (subtotal)	68	93	1,181	664	2,006
Maine					
White Mountain (subtotal)	0	0	0	12	12
Michigan					
Hiawatha	2,934	4,369	524	54	7,881
Huron-Manistee	957	1,416	360	30	2,763
Ottawa	1,488	12,470	2,457	0	16,415
Subtotal	5,379	18,255	3,341	84	27,059
Minnesota					
Chippewa	156	1,149	171	9	1,485
Superior	1,012	11,686	1,445	611	14,754
Subtotal	1,168	12,835	1,616	620	16,239
Mississippi					
NFs in Mississippi (subtotal)	219	775	1,933	5,677	8,604
Missouri					
Mark Twain (subtotal)	732	15,215	108	0	16,055
Montana					
Beaverhead	409	431	18	0	858
Bitterroot	1,585	521	143	17	2,266
Custer	3,882	216	163	0	4,261
Deerlodge	1,594	245	272	0	2,111
Flathead	4,482	891	1,271	48	6,692
Gallatin	694	2,280	0	0	2,974
Helena	1,404	65	104	2	1,575
Kootenai	7,562	3,020	3,147	1,055	14,784
Lewis and Clark	1,157	200	15	0	1,372
Lolo	7,168	3,730	1,615	551	13,064
Subtotal	29,937	11,599	6,748	1,673	49,957
Nebraska					
Nebraska (subtotal)	0	0	0	0	0
New Hampshire					
White Mountain (subtotal)	1,502	3,164	1,274	104	6,044
Nevada					
Humboldt	0	0	0	0	0
Lake Tahoe Basin	0	0	0	800	800
Toiyabe	0	0	0	0	0
Subtotal	0	0	0	800	800

See footnotes at end of table.

Table 18–Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class--Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
New Mexico					
Carson	835	430	14	0	1,279
Cibola	1,230	35	0	0	1,265
Gila	1,991	545	0	0	2,536
Lincoln	0	1,253	240	0	1,493
Santa Fe	6,052	1,346	0	0	7,398
Subtotal	10,108	3,609	254	0	13,971
New York					
Green Mountain (subtotal)	0	6	11	8	25
North Carolina					
NFs in North Carolina (subtotal)	377	2,512	0	207	3,096
Ohio					
Wayne (subtotal)	0	0	907	1,369	2,276
Oklahoma					
Ouachita (subtotal)	0	43	10	316	369
Oregon					
Deschutes	14,038	8,493	708	49	23,288
Fremont	5,900	6,929	336	30	13,195
Klamath	10	10	97	177	294
Malheur	1,438	14,943	0	0	16,381
Mt. Hood	637	8,033	1,360	939	10,969
Ochoco	8,269	4,351	142	0	12,762
Rogue River	0	966	5,109	62	6,137
Siskiyou	94	33	586	279	992
Siuslaw	0	0	0	705	705
Umatilla	1,040	13,950	853	482	16,325
Umpqua	90	1,183	2,633	976	4,882
Wallowa-Whitman	7,689	8,533	3,399	0	19,621
Willamette	48	1,428	4,317	7,418	13,211
Winema	3,252	8,832	8,250	542	20,876
Subtotal	42,505	77,684	27,790	11,659	159,638
Pennsylvania					
Allegheny (subtotal)	3,653	993	0	0	4,646
Puerto Rico					
Caribbean (subtotal)	0	0	41	118	159
South Carolina					
Francis Marion and Sumter (subtotal)	0	0	2,905	1,296	4,201
South Dakota					
Black Hills (subtotal)	35,957	6,150	0	22	42,129

See footnotes at end of table.

Table 18—Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	 50-84	 85-119	 120+	Total acres
Tennessee					
Cherokee (subtotal)	0	530	1,147	3,449	5,126
Texas					
NFs in Texas (subtotal)	0	3,939	1,726	324	5,989
Utah					
Ashley	14,609	0	0	0	14,609
Dixie	1,945	635	0	0	2,580
Fishlake	77	200	5	0	282
Manti-LaSal	0	0	19	0	19
Uinta	0	0	246	0	246
Wasatch-Cache	76	225	84	15	400
Subtotal	16,707	1,060	354	15	18,136
Vermont					
Green Mountain (subtotal)	218	591	315	7	1,131
Virginia					
George Washington	1,586	340	0	87	2,013
Jefferson	656	2,904	149	649	4,358
Subtotal	2,242	3,244	149	736	6,371
Washington					
Colville	1,023	3,740	2,754	143	7,660
Gifford Pinchot	0	1,423	8,828	501	10,752
Idaho Panhandle	262	0	296	0	558
Mt. Baker-Snoqualmie	0	284	362	160	806
Okanogan	3,848	1,896	995	0	6,739
Olympic	0	197	238	204	639
Umatilla	64	1,461	13	395	1,933
Wenatchee	148	34,331	4,092	171	38,742
Subtotal	5,345	43,332	17,578	1,574	67,829
West Virginia					
George Washington	102	44	10	149	305
Monongahela	106	707	1,151	522	2,486
Subtotal	208	751	1,161	671	2,791

See footnotes at end of table.

Table 18–Reforestation needs as of October 1, 1994, by State, national forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total acres
	0-49	50-84	85-119	120+	
Wisconsin					
Chequamegon	1,559	3,859	1,063	111	6,592
Nicolet	160	2,106	361	311	2,938
Subtotal	1,719	5,965	1,424	422	9,530
Wyoming					
Bighorn	8,443	1,281	0	0	9,724
Black Hills	10,065	7,689	38	0	17,792
Bridger-Teton	0	86	2,221	0	2,307
Medicine Bow	5,391	531	0	0	5,922
Shoshone	377	445	0	90	912
Wasatch	104	126	0	0	
Subtotal	24,380	10,158	2,259	90	36,887
Total	256,125	333,991	172,717	135,848	898,681

1/ Site productivity class refers to the amount of wood produced in cubic feet per acre per year in a natural unmanaged stand.

2/ Unlisted States had no reforestation needs as of October 1, 1994

Table 18–Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
Alabama					
NFs in Alabama (subtotal)	86	1,247	3,978	515	5,826
Alaska					
Chugach	0	172	0	0	172
Tongass-Chatham	171	1,275	3,862	9,794	15,102
Tongass-Ketchikan	0	281	1,270	20,267	21,818
Tongass-Stikine	83	156	618	9,940	10,797
Subtotal	254	1,884	5,750	40,001	47,889
Arizona					
Apache-Sitgreaves	4,025	5,098	190	0	9,313
Coconino	14,028	4,106	0	0	18,134
Coronado	0	8	0	0	8
Kaibab	4,914	2,474	0	0	7,388
Prescott	118	9	0	0	127
Tonto	898	0	0	0	898
Subtotal	23,983	11,695	190	0	35,868
Arkansas					
Ouachita	45	2,868	4,447	39	7,399
Ozark-St. Francis	228	5,446	1,886	11	7,571
Subtotal	273	8,314	6,333	50	14,970
California					
Angeles	254	511	272	0	1,037
Cleveland	0	158	0	0	158
Eldorado	0	124	1,338	10,398	11,860
Inyo	0	123	128	0	251
Klamath	926	3,427	4,189	3,940	12,482
Lake Tahoe Basin	0	47	1,454	0	1,501
Lassen	17	9,878	4,111	2,931	16,937
Los Padres	0	21	5	0	26
Mendocino	121	1,615	1,366	817	3,919
Modoc	25	1,823	899	550	3,297
Plumas	0	1,008	12,148	1,846	15,002
Rogue River	0	236	0	0	236
San Bernardino	346	389	29	0	764
Sequoia	18	1,594	618	5,292	7,522
Shasta	0	165	611	1,372	2,148
Sierra	0	174	937	1,421	2,532
Siskiyou	0	0	62	0	62
Six Rivers	0	4	1,236	1,136	2,376

See footnotes at end of table.

Table 13—Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total acres
	0-49	50-84	85-119	120+	
California (continued)					
Stanislaus	2,165	13,744	26,968	22,525	65,402
Tahoe	0	931	2,444	4,073	7,448
Toiyabe	23	0	0	0	23
Trinity	2	1,724	913	1,382	4,021
Subtotal	3,897	37,696	59,728	57,683	159,004
Colorado					
Arapaho and Roosevelt	9,312	206	0	0	9,518
Grand Mesa, Uncompahgre, and Gunnison	6,508	2,653	169	34	9,364
Pike and San Isabel	2,032	304	0	0	2,336
Rio Grande	1,387	2,185	155	0	3,727
Routt	5,856	1,890	133	0	7,879
San Juan	1,668	2,607	258	0	4,533
White River	1,220	988	157	0	2,365
Subtotal	27,983	10,833	872	34	39,722
Florida					
NFs in Florida (subtotal)	0	0	3,179	1,461	4,640
Georgia					
Chattahoochee and Oconee (subtotal)	0	0	2,978	437	3,415
Idaho					
Boise	2,931	26,521	5,285	2,220	36,957
Caribou	0	916	28	0	944
Challis	0	402	0	0	402
Clearwater	4,090	353	2,251	4,538	11,232
Idaho Panhandle	12,088	2,078	6,385	6,000	26,551
Kootenai	1	6	48	0	55
Nez Perce	782	968	4,686	2,213	8,649
Payette	1,734	1,834	4,795	39	8,402
Salmon	8,630	303	0	0	8,933
Sawtooth	190	330	0	0	520
Targhee	805	14,265	0	56	15,126
Subtotal	31,251	47,976	23,478	15,066	117,771
Illinois					
Shawnee (subtotal)	0	345	298	18	661
Indiana					
Hoosier (subtotal)	0	0	1,147	590	1,737

See footnotes at end of table.

Table 18–Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	 50-84	 85-119	 120+	Total acres
Kentucky					
Daniel Boone (subtotal)	0	1,764	3,330	241	5,335
Louisiana					
Kisatchie (subtotal)	34	758	79	2,146	3,017
Maine					
White Mountain (subtotal)	0	0	0	12	12
Michigan					
Hiawatha	2,919	4,511	477	54	7,961
Huron-Manistee	760	1,627	399	25	2,811
Ottawa	1,483	11,858	2,182	29	15,552
Subtotal	5,162	17,996	3,058	108	26,324
Minnesota					
Chippewa	0	201	0	0	201
Superior	0	10,520	1,188	585	12,293
Subtotal	0	10,721	1,188	585	12,494
Mississippi					
NFs in Mississippi (subtotal)	219	718	2,307	6,333	9,577
Missouri					
Mark Twain (subtotal)	0	11,329	61	0	11,390
Montana					
Beaverhead	427	453	28	0	908
Bitterroot	2,330	873	257	24	3,484
Custer	2,971	113	163	0	3,247
Deerlodge	1,592	245	469	0	2,306
Flathead	6,848	1,102	2,253	335	10,538
Gallatin	898	3,030	34	8	3,970
Helena	2,062	122	178	2	2,364
Kootenai	11,470	3,358	4,666	1,222	20,716
Lewis and Clark	1,184	104	25	0	1,313
Lolo	6,973	3,703	1,638	318	12,632
Subtotal	36,755	13,103	9,711	1,909	61,478
New Hampshire					
White Mountain (subtotal)	1,366	2,518	1,005	91	4,980

See footnotes at end of table.

Table 18—Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
New Mexico					
Carson	1,222	256	0	0	1,478
Cibola	1,470	56	0	0	1,526
Gila	1,860	468	0	0	2,328
Lincoln	0	1,340	221	0	1,561
Santa Fe	5,008	1,105	0	0	6,113
Subtotal	9,560	3,225	221	0	13,006
New York					
Green Mountain (subtotal)	0	6	0	8	14
North Carolina					
NFs in North Carolina (subtotal)	377	2,716	234	144	3,471
Ohio					
Wayne (subtotal)	0	0	907	1,369	2,276
Oklahoma					
Ouachita (subtotal)	0	100	27	289	416
Oregon					
Deschutes	18,396	8,414	831	204	27,845
Fremont	8,068	11,509	254	30	19,861
Klamath	10	22	99	245	376
Malheur	2,791	22,503	0	0	25,294
Mt. Hood	786	9,547	2,016	1,230	13,579
Ochoco	11,545	5,427	142	0	17,114
Rogue River	0	1,435	6,490	704	8,629
Siskiyou	94	60	2,085	861	3,100
Siuslaw	0	0	0	1,498	1,498
Umatilla	1,077	15,759	1,482	1,118	19,436
Umpqua	148	1,805	1,891	2,290	6,134
Wallowa-Whitman	10,275	13,522	4,931	35	28,763
Willamette	48	1,998	6,454	9,327	17,827
Winema	4,211	15,606	8,751	625	29,193
Subtotal	57,449	107,607	35,426	18,167	218,649
Pennsylvania					
Allegheny (subtotal)	3,670	1,527	0	4	5,201
Puerto Rico					
Caribbean (subtotal)	0	0	41	118	159
South Carolina					
Francis Marion and Sumter (subtotal)	0	0	6,361	2,065	8,426

See footnotes at end of table.

Table 18–Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
South Dakota					
Black Hills (subtotal)	30,492	6,452	0	22	36,966
Tennessee					
Cherokee (subtotal)	0	944	1,414	3,556	5,914
Texas					
NFs in Texas (subtotal)	0	4,028	2,204	359	6,591
Utah					
Ashley	13,891	0	0	0	13,891
Dixie	3,346	676	0	0	4,022
Fishlake	29	290	5	0	324
Manti-LaSal	0	309	100	0	409
Uinta	0	0	275	0	275
Wasatch-Cache	0	167	0	0	167
Subtotal	17,266	1,442	380	0	19,088
Vermont					
Green Mountain (subtotal)	0	0	5	0	5
Virginia					
George Washington	1,237	145	9	97	1,488
Jefferson	490	3,326	129	776	4,721
Subtotal	1,727	3,471	138	873	6,209
Washington					
Colville	1,022	5,481	2,538	309	9,350
Gifford Pinchot	0	1,570	9,402	1,295	12,267
Idaho Panhandle	322	0	653	34	1,009
Mt. Baker-Snoqualmie	0	322	726	129	1,177
Okanogan	2,218	3,002	995	0	6,215
Olympic	0	240	1,250	578	2,068
Umatilla	70	2,302	35	371	2,778
Wenatchee	148	2,415	4,308	128	6,999
Subtotal	3,780	15,332	19,907	2,844	41,863
West Virginia					
George Washington	62	47	10	149	268
Monongahela	94	670	1,028	391	2,183
Subtotal	156	717	1,038	540	2,451

See footnotes at end of table.

Table 18—Reforestation needs as of October 1, 1993, by State, national forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total acres
	0-49	50-84	85-119	120+	
Wisconsin					
Chequamegon	2,297	5,185	968	178	8,628
Nicolet	481	2,287	762	306	3,836
Subtotal	2,778	7,472	1,730	484	12,464
Wyoming					
Bighorn	1,734	651	0	0	2,385
Black Hills	8,676	8,394	38	0	17,108
Bridger-Teton	0	152	2,476	0	2,628
Medicine Bow	5,429	536	0	0	5,965
Shoshone	465	627	0	90	1,182
Wasatch	0	112	0	0	112
Subtotal	16,304	10,472	2,514	90	29,380
Total	274,822	344,408	201,217	158,212	978,659

1/ Site productivity class refers to the amount of wood produced in cubic feet per acre per year in a natural unmanaged stand.
2/ Unlisted States had no reforestation needs as of October 1, 1993.

Table 20–Reforestation needs as of October 1, 1992, by State, forest, and site productivity class

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
Alabama					
NFs in Alabama (subtotal)	17	1,366	4,145	397	5,925
Alaska					
Chugach	0	45	0	0	45
Tongass-Chatham	171	1,127	3,821	8,322	13,441
Tongass-Ketchikan	0	263	960	17,486	18,709
Tongass-Stikine	102	494	2,390	7,566	10,552
Subtotal	273	1,929	7,171	33,374	42,747
Arizona					
Apache-Sitgreaves	692	1,882	217	0	2,791
Coconino	13,556	4,670	0	0	18,226
Coronado	0	0	0	0	0
Kaibab	568	260	0	0	828
Prescott	118	0	0	0	118
Tonto	1,671	0	0	0	1,671
Subtotal	16,605	6,812	217	0	23,634
Arkansas					
Ouachita	48	3,682	5,588	39	9,357
Ozark-St. Francis	191	1,630	370	11	2,202
Subtotal	239	5,312	5,958	50	11,559
California					
Angeles	169	309	272	0	750
Cleveland	0	158	0	0	158
Eldorado	0	124	1,373	10,306	11,803
Inyo	0	315	100	0	415
Klamath	304	3,751	5,131	4,532	13,718
Lake Tahoe Basin	0	47	1,454	0	1,501
Lassen	61	10,648	3,321	2,594	16,624
Los Padres	5	76	0	0	81
Mendocino	321	2,607	1,928	854	5,710
Modoc	30	1,931	1,027	517	3,505
Plumas	0	908	13,842	1,339	16,089
Rogue River	0	205	368	0	573
San Bernardino	346	389	29	0	764
Sequoia	18	1,865	968	3,647	6,498
Shasta	0	171	719	3,132	4,022
Sierra	0	366	1,496	1,808	3,670
Siskiyou	0	0	895	0	895
Six Rivers	0	27	1,979	1,571	3,577

See footnotes at end of table.

Table 20—Reforestation needs as of October 1, 1992, by State, forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total acres
	0-49	50-84	85-119	120+	
California (continued)					
Stanislaus	2,841	18,223	30,615	23,149	74,828
Tahoe	4	1,101	2,722	3,900	7,727
Toiyabe	23	0	0	0	23
Trinity	2	3,223	1,203	2,398	6,826
Subtotal	4,124	46,444	69,442	59,747	179,757
Colorado					
Arapaho and Roosevelt	9,462	288	0	0	9,750
Grand Mesa, Uncompahgre, and Gunnison	6,400	2,297	128	0	8,825
Pike and San Isabel	1,532	225	0	0	1,757
Rio Grande	559	851	151	0	1,561
Routt	7,437	2,284	42	0	9,763
San Juan	1,810	2,678	192	0	4,680
White River	1,020	908	44	0	1,972
Subtotal	28,220	9,531	557	0	38,308
Florida					
NFs in Florida (subtotal)	331	737	4,441	1,734	7,243
Georgia					
Chattahoochee and Oconee (subtotal)	0	206	4,389	597	5,192
Idaho					
Boise	2,901	17,463	4,743	2,726	27,833
Caribou	0	187	28	0	215
Challis	0	0	0	0	0
Clearwater	7,135	555	3,580	6,480	17,750
Idaho Panhandle	15,033	2,070	7,476	6,473	31,052
Kootenai	59	12	124	13	208
Lolo	0	0	0	0	0
Nez Perce	2,846	2,085	6,057	3,130	14,118
Payette	1,888	3,714	5,652	39	11,293
Salmon	8,821	386	0	0	9,207
Sawtooth	190	40	0	0	230
Targhee	438	14,901	0	56	15,395
Subtotal	39,311	41,413	27,660	18,917	127,301
Illinois					
Shawnee (subtotal)	0	345	230	0	575
Indiana					
Hoosier (subtotal)	0	0	1,147	590	1,737

See footnotes at end of table.

Table 20–Reforestation needs as of October 1, 1992, by State, forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	 50-84	 85-119	 120+	Total acres
Kentucky					
Daniel Boone (subtotal)	0	2,509	1,720	271	4,500
Louisiana					
Kisatchie (subtotal)	34	642	2,016	2,175	4,867
Maine					
White Mountain (subtotal)	0	12	21	12	45
Michigan					
Hiawatha	4,828	7,404	1,451	137	13,820
Huron-Manistee	3,960	2,978	539	38	7,515
Ottawa	1,749	12,385	2,043	155	16,332
Subtotal	10,537	22,767	4,033	330	37,667
Minnesota					
Chippewa	249	0	319	92	660
Superior	0	3,009	1,252	536	4,797
Subtotal	249	3,009	1,571	628	5,457
Mississippi					
NFs in Mississippi (subtotal)	219	1,645	4,156	6,480	12,500
Missouri					
Mark Twain (subtotal)	0	11,392	61	0	11,453
Montana					
Beaverhead	663	537	0	0	1,200
Bitterroot	2,734	1,168	377	19	4,298
Custer	3,437	553	221	0	4,211
Deerlodge	2,267	317	494	0	3,078
Flathead	11,477	1,903	3,730	708	17,818
Gallatin	841	1,601	34	8	2,484
Helena	3,720	349	174	4	4,247
Idaho Pandle	0	0	0	22	22
Kootenai	15,481	4,453	8,599	1,476	30,009
Lewis and Clark	2,481	461	56	0	2,998
Lolo	8,718	4,418	1,894	294	15,324
Subtotal	51,819	15,760	15,579	2,531	85,689
New Hampshire					
White Mountain (subtotal)	1,629	3,278	1,098	150	6,155

See footnotes at end of table.

Table 20–Reforestation needs as of October 1, 1992, by State, forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
New Mexico					
Carson	237	0	0	0	237
Cibola	598	35	0	0	633
Gila	972	204	0	0	1,176
Lincoln	0	1,231	89	0	1,320
Santa Fe	2,561	901	0	0	3,462
Subtotal	4,368	2,371	89	0	6,828
New York					
Green Mountain (subtotal)	0	10	23	8	41
North Carolina					
NFs in North Carolina (subtotal)	392	2,614	619	313	3,938
Ohio					
Wayne (subtotal)	0	163	1,018	1,369	2,550
Oklahoma					
Ouachita (subtotal)	0	479	297	670	1,446
Oregon					
Deschutes	21,666	11,721	1,169	354	34,910
Fremont	8,340	10,268	296	45	18,949
Klamath	10	62	74	153	299
Malheur	3,620	24,340	0	0	27,960
Mt. Hood	782	9,296	3,454	1,826	15,358
Ochoco	16072	5291	142	0	21,505
Rogue River	0	1,846	7,769	278	9,893
Siskiyou	10	95	2,386	1,346	3,837
Siuslaw	0	0	0	1,851	1,851
Umatilla	1,177	14,428	1,544	1,679	18,828
Umpqua	148	2,053	3,602	2,625	8,428
Wallowa-Whitman	7,989	26,348	7,242	578	42,157
Willamette	48	1,397	3,732	6,461	11,638
Winema	6,770	19,540	7,695	662	34,667
Subtotal	66,632	126,685	39,105	17,858	250,280
Pennsylvania					
Allegheny (subtotal)	3,800	1,824	0	0	5,624
Puerto Rico					
Caribbean (subtotal)	0	0	41	118	159
South Carolina					
Francis Marion and Sumter (subtotal)	0	0	10,598	6,866	17,464

See footnotes at end of table.

Table 20—Reforestation needs as of October 1, 1992, by State, forest, and site productivity class—Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/				Total
	0-49	50-84	85-119	120+	acres
South Dakota					
Black Hills (subtotal)	25,289	5,888	0	0	31,177
Tennessee					
Cherokee (subtotal)	17	1,626	1,491	3,918	7,052
Texas					
NFs in Texas (subtotal)	0	4,761	4,318	493	9,572
Utah					
Ashley	15,186	0	0	0	15,186
Dixie	732	638	0	0	1,370
Fishlake	30	285	0	0	315
Manti-LaSal	0	380	100	0	480
Uinta	0	0	183	0	183
Wasatch-Cache	305	0	0	0	305
Subtotal	16,253	1,303	283	0	17,839
Vermont					
Green Mountain (subtotal)	40	137	255	20	452
Virginia					
George Washington	1,329	976	58	246	2,609
Jefferson	444	3,046	115	280	3,885
Subtotal	1,773	4,022	173	526	6,494
Washington					
Colville	2,092	7,517	2,818	247	12,674
Gifford Pinchot	0	3,251	8,997	1,454	13,702
Idaho Panhandle	109	0	730	36	875
Mt. Baker-Snoqualmie	0	361	1,367	752	2,480
Okanogan	2,773	3,721	1,459	0	7,953
Olympic	0	164	1,844	1,068	3,076
Umatilla	142	1,326	94	163	1,725
Wenatchee	479	1,881	4,791	287	7,438
Subtotal	5,595	18,221	22,100	4,007	49,923
West Virginia					
George Washington	69	3	10	149	231
Jefferson	0	0	0	0	0
Monongahela	73	696	1,160	323	2,252
Subtotal	142	699	1,170	472	2,483

See footnotes at end of table.

Table 20–Reforestation needs as of October 1, 1992, by State, forest, and site productivity class–Continued

State, Commonwealth, or Territory 1/ National Forest	Acres by site productivity class 2/ 0-49	50-84	85-119	120+	Total acres
Wisconsin					
Chequamegon	1,636	4,162	896	193	6,887
Nicolet	856	4,490	1,729	365	7,440
Subtotal	2,492	8,652	2,625	558	14,327
Wyoming					
Bighorn	1,465	419	0	0	1,884
Black Hills	8,206	8,774	38	0	17,018
Bridger-Teton	0	258	1,917	0	2,175
Medicine Bow	5,071	670	0	0	5,741
Shoshone	1,392	486	688	0	2,566
Targhee	0	0	0	0	0
Wasatch	0	112	0	0	112
Subtotal	16,134	10,719	2,643	0	29,496
Total	296,534	365,283	242,460	165,179	1,069,456

1/ Site productivity class refers to the amount of wood produced in cubic feet per acre per year in a natural unmanaged stand.

2/ States not listed had no reforestation needs as of October 1, 1992.

statutory requirements. These statutes require that lands recieve prompt treatment following harvest and disturbance such that self-sustaining regeneration occurs wthin five years.

483. Question: What are the estimated costs by site of carrying stands to the size where the timber will be cut? Counting interest on regeneration costs, what sort of price per thousand BF would be required to recapture the investment? How does this vary by site and species?

Answer: The cost of carrying stands to a merchantable size varies considerably, not only by site conditions and species composition as suggested by this question, but also by management objectives, past stand history, and other important factors. Economic considerations are important and are considered during the forest planning process in making land suitability determinations and analyzing alternatives in the development of the forest plan. The cost of regeneration treatments, by both artificial and natural methods, is one of the many variables considered as we make these determinations and analyses during the development of the forest plan.

To illustrate the considerable range in cost, two scenarios are presented. The first example represents artificially regenerating lands with high site potential within the suitable landbase. On a typical site in the West, successful artificial regeneration might involve the following sequence: planting in Year 1 @ $200/acre; release treatment in Year 3 @ $150/acre; reforestation surveys in Years 1 and 3 @ $3/acre per survey; and a precommercial thinning in Year 10 @ $150 per acre. Using an inflation factor of 4 percent per annum and compounding to the year of execution, these per acre costs are: $200 for planting, $169 per acre for release, $6.37 per acre for surveys, and $222 per acre for precommercial thinning. Thus, a total of $547 per acre is invested by Year 10. Subsequent entries into the stand will yield a return from commercial thinnings and regeneration cuttings. It is not uncommon for high site lands in the West to carry standing volumes of 25 thousand board feet per acre at time of final harvest (many stands carry volume far in excess of this amount). Assuming this average volume, a present value selling price of $21.88 per thousand would recapture the investment.

A second scenario might involve natural regeneration on lands with low site potential. Here, at time of final harvest merchantable yields may be only 10 thousand board feet per acre. A typical reforestation treatment regime might involve site preparation in Year 1 @ $150/acre; reforestation surveys in Years 1, 3, and 5 @ $3/acre; and a precommercial thinning in Year 20 @ $150 per acre. Again applying an inflation factor of 4 percent per annum and compouding to the year of execution, these per acre costs become $150 for site preparation, $10.02 per acre for 3 surveys, and $329 per acre for precommercial thinning for a total investment by Year 20 of $489 per acre. Here, due to the reduced volume yield on these lower sites, a present value selling price of $48.90 per thousand is needed to recapture the investment.

We make every effort to select the most cost-efficient means of achieving our reforestation objectives. It is important to note that statutory language contained in Section 3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (P.L. 93-378, 88 Stat. 476, as amended 16 USC 1600-1614) underscores the policy of Congress to maintain all forested lands in appropriate forest cover and to outlines requirments for reporting, certification examinations, and prompt treatment in order to eliminate and avoid the creation of another reforestation backlog. Section 6 requirements necessitate that, for suitable lands, there be assurance such lands can be regenerated within five years of after harvest. These statutory requirements can, in some instances, make it necessary to utilize a different and sometimes more costly mix of reforestation treatments than might otherwise be required. For example, requirements under Section 6 that there be assurance we can regenerate stands within five years of harvest may necessitate more costly artificial regeneration methods in lieu of natural regeneration, if cone crops are infrequent or unpredictable and sporadic in nature.

484. Question: What standard would be appropriate to determine whether to cut timber and the method of regeneration to apply in order to be more cost-effective?

Answer: We strive to be as cost-effective as possible in achieving our objectives for managing timber resources and meeting reforestation objectives. We believe Congress has established standards under existing legislation which strike a balance between economic and environmental aspects of renewable resource management. Economic factors are considered in the mix of alternatives considered during the forest planning process. Site conditions, timber characteristics, and the cost of regeneration treatments are all variables considered in this mix as well. These same factors are also considered in evaluating options and making decisions at the project level.

In light of the many variables that influence harvest and regeneration methods, no single standard can be appropriately applied.

485. Question: What consideration is now given to cost in deciding whether to cut a current stand?

Answer: Cost considerations are integral in our decision making process related to timber sales. Cost factors are considered at all levels of decision-making. Economic considerations influence alternative selection for decisions related to land managment. At the forest level, the Timber Sale Program Information Reporting System (TSPIRS) serves as a useful tool for monitoring the cost-efficiency of our timber program.

Economic factors are also important at the project level. Here, we have recently fortified our directives to ensure that these factors are considered early in the timber sale planning process. We have also developed a sale evaluation tool, the Timber Sale Planning and Analysis System (TSPAS), to assist in making these evaluations at the project level. Economic factors also influence stand selection, prescription development, as well as subsequent marking and preparation of the sale.

486. Question: What considerations should be given to whether commercial timber growing should be used, or whether the area should be managed to protect the watershed?

Answer: We do not hold the view that growing wood and protecting watershed resources are inherently incompatible management objectives. Timber sales are designed, prepared, and administered to ensure that watershed resource values, as well as other important resource values within the sale area, are protected or enhanced through sale implementation.

The appropriate mix of lands managed for the purpose of timber production and lands managed to meet some other resource objective is a land allocation issue. These issues are debated and resolved during the land management planning process. The land and resource management plan provides appropriate management direction, standards and guidelines, and monitoring requirements to facilitate effective management within each of these allocations.

ADDITIONAL QUESTIONS FROM CONGRESSMAN CHARLES TAYLOR

REGION 8 MOVE

487. Question: The General Services Administration testified last week about threats to various government agencies. What kind and how many threats are you receiving, and what has been your response to these threats?

Answer: To our knowledge we are not aware of any threats directly to the building the Forest Service currently occupies in Atlanta. We are also not aware of any threats to the Forest Service in Region 8.

Most of the threats to government agencies seems to be occurring in the West. The most significant events have occurred in Region 4 of the Forest Service. This area encompasses Nevada, Utah, Southern Idaho and Western Wyoming. In March of 1995, a bomb was detonated at a district office during non-duty hours and an outhouse was destroyed by a small bomb. In April 1995, an employee was murdered by two escapees from a detention center. During this same time period, shots were fired at a fire engine crew. There have been several instances where employees have been threatened and bomb threats received involving facilities solely or jointly occupied by the Forest Service. In Region 3, which covers Arizona and New Mexico, a fire occurred from 2 pipe bombs in May of 1995. In January of 1996, a bomb exploded at a district rangers office which resulted in $25,000 damage to the office. Bomb threats were received during the month of April, this year, at the Regional Office in Albuquerque, NM. In Region 1 which covers Montana, Northern Idaho, North and South Dakota, an employee and his wife escaped serious injury when a large rock and brick were thrown through a large front window. As recent as April 7, 1996, incendiary devices have been found at Forest Service facilities.

Vulnerability assessments are being done of all facilities. This includes a physical security survey and threat assessment. We are encouraging employees to travel in pairs where they believe there is a risk to personal safety. Any threat or intimidation of employees is immediately investigated.

488. Question: Are the threats localized, or do you receive them all over the country?

Answer: As stated above, most of the threats are in the Western states.

489. Question: Consolidating a number of Federal agencies in one location would seem to increase the risk of a threatening action against one agency affecting another. Have you discussed this possibility with GSA?

Answer: Yes, the possibility of increased threats when several federal agencies are located together has been discussed with GSA in a number of meetings. The Forest Service has not formally submitted this concern to GSA in writing.

SOUTHERN APPALACHIAN ASSESSMENT

It is my understanding that a roadless area (5,000 acres) may contain no more than 0.5 miles of "improved road" for each 1,000 acres. Therefore a 5,000-acre area may have a maximum road density of 2.5 miles of improved road. However, I have learned that improved roads, including paved state highways, are being used as boundaries for potential roadless areas identified through the SAA, and these roads are not included in the maximum road density calculations. The existence of well-travelled roads seems inconsistent with the characteristics required for roadless designation ("natural, untrammeled appearance"; identifiable wilderness values").

490. Question: Please explain why improved roads serving as boundaries for potential roadless areas are not included in the "improved road" density calculations.

Answer: The criteria for identification of roadless areas is found in FSH 1909.12, Chapter 7. The criterion dealing with improved roads is found in Section 7.11b, item 5, which states that - "The area contains no more than a half mile of improved road for each 1,000 acres, and the road is under Forest Service jurisdiction." In the application of this criterion, state and other municipality roads were not included in a roadless area because they are not under Forest Service jurisdiction. However, they can and do serve as appropriate boundaries to roadless areas just as other improved roads under Forest Service jurisdiction do. A boundary must be established to delineate a roadless area, but that area may contain improved roads within the boundary only if they are under Forest Service jurisdiction.

Section 7.12 - Listing and Mapping Roadless Areas, directs us to section 7.26 for guidelines on establishing, adjusting, and mapping boundaries of areas recommended for wilderness designation. Although the evaluation and recommendation aspect of roadless areas will occur in the Forest Plan revision process, section 7.26 does provide guidance on roadless area boundaries. Section 7.26 states, in part, to - "Establish boundaries that are easy to define and locate and that can be managed." This section then lists seven methods of locating a wilderness boundary by descending order of desirability. The second method stated in section 7.26 is - "2. Use semipermanent manmade features that are locatable on the map and on the ground. Roads, trails, dams, powerlines and pipelines, and bridges may be used. In addition, lines may be drawn parallel and set back a given distance from any of these features with well-defined starting and ending points. Clearly indicate on the map the feature itself and the distance of boundary lines from the feature." Although it would be preferable to use natural features to establish a boundary, it is not always possible and therefore the use of roads and other improvements as defined above may be used.

In a letter dated May 19, 1995, from the Regional Forester to the Forest Supervisors (page 8, second paragraph) it states - "At this stage of analysis it is not necessary to be concerned with precise boundary descriptions, such as 'offset xx feet and parallel to the centerline of road xx' or 'follows clearing limits, xx feet from centerline of gas pipeline', this will come later if the area is designated Wilderness. In establishing roadless area boundaries, simply consider it following the road R-O-W, powerline clearing, and other features."

Although improved roads serving as a boundary to a roadless area were not included in the improved density criteria, their influence was not discounted. The existence and use of improved roads whether on the boundary or within a roadless area does have an effect on a area's ability to provide a sense of solitude as defined by the 1964 Wilderness Act. This effect on solitude was another criterion used to identify roadless areas.

TUESDAY, MAY 7, 1996.

U.S. FOREST SERVICE AND BUREAU OF LAND MANAGEMENT

INTERIOR COLUMBIA BASIN ECOSYSTEM MANAGEMENT

WITNESSES

HON. RICHARD "DOC" HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

HON. HELEN CHENOWETH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

COMMISSIONER JOHN HOWARD, UNION COUNTY, OREGON

JIM GEISINGER, NORTHWEST FORESTRY ASSOCIATION, PORTLAND, OREGON

DAVE HALLEY, PULP AND PAPERWORKER'S RESOURCE COUNCIL, IDAHO

PAUL BROUHA, AMERICAN FISHERIES SOCIETY, BETHESDA, MARYLAND

JACK WARD THOMAS, CHIEF, U.S. FOREST SERVICE

MIKE DOMBECK, ACTING DIRECTOR, BUREAU OF LAND MANAGEMENT

TOM MILLS, DIRECTOR, FOREST SERVICE PACIFIC NORTHWEST RESEARCH STATION

STEVE MEALEY, PROJECT MANAGER, UPPER COLUMBIA BASIN ENVIRONMENTAL IMPACT STATEMENT TEAM

MARTHA HAHN, IDAHO STATE DIRECTOR, BUREAU OF LAND MANAGEMENT

ELAINE ZIELINSKI, OREGON/WASHINGTON STATE DIRECTOR, BUREAU OF LAND MANAGEMENT

Mr. REGULA. This is a hearing in the nature of an oversight-type hearing to look at the issues involving the Interior, Columbia Basin Ecosystem Management Project.

We have two Members that will be testifying. We have a group and then a panel of people that have an interest in this. And then last will be Jack Ward Thomas, the Chief of the Forest Service, and Mike Dombeck, the Acting Director of the BLM.

So we will get started and so we will move along. And our first witness today will be Doc Hastings from the State of Washington.

If you have a statement, we will put it in the record and you can summarize or however you choose to present your information.

Mr. HASTINGS. Thank you, Mr. Chairman.

I do have a statement, and I would like to have it included, and I will paraphrase.

I want to thank you for holding this hearing on the Interior Columbia Basin Ecosystem Management Project. I am not very good with acronyms.

I also want to thank my good friend and colleague from the congressional district next to me, George Nethercutt for working on this issue, because it obviously affects his district, too.

The EIS Ecosystem Project is of great importance to me because virtually of all my congressional district is included in this authorized Federal study. We have tremendous concern among my constituents for two reasons: Number one, its lack of adequate local input to its management approach to the Federal lands; and two, for its failure to provide safeguards protecting private property which is probably the biggest issue that I have.

My district lies just east of the Cascade Mountains and extends from Canada to the Oregon border. My district is dominated by agriculture and other resources-based industries. My constituents take great pride in preserving these resources.

However, in recent years, they have seen a quality of some of these resources deteriorate due in many respects to onerous Federal regulations. For example, in the summer of 1994, thousands of acres of national forest land in the northern part of my district were devastated by a fire.

Drought was a major cause of that fire. We go through times of drought, and this year we have had plenty of water. Some of the reason for the fire, in addition to the drought, was because of the issue of the spotted owl—we couldn't have the proper forest management practices. As a result, a lot of fuel built up and when the fires do start and there will be another fire in the future, we have fires all the time, there is a whole lot of devastation, frankly, because of that.

What I would like to suggest, though, this hopefully will be the tone of what my remarks are all about, that there are environmental success stories that have happened in central Washington. A good example of that is one that has nothing to do with forest lands but it has to do with the water in the Columbia River. That is called the Vernita Agreement which was promulgated in 1988. It included an agreement between the Mid-Columbia Public Utility Districts, the Bonneville Power Administration, the National Marine Fisheries Service and State agencies and local tribes.

Now, the Vernita Agreement is an area that is an agreement of the Hanford Reach, which is the last free-flowing stretch of the Columbia River. Under this agreement, the Grand Coulee PUD have two dams that are on the Columbia River there, they are required to shape in-stream flows during the fall's spawning period to discourage fish from spawning at high elevations.

This is accomplished by maintaining low flows during the daylight hours when fish do most of their spawning and allowing flows to run higher at night. The process of allowing salmon to spawn lower in the bar requires less water from the power system to protect salmon eggs until they leave the following spring. This operation is reverse of the normal energy cycle and is possible only through the cooperation of the Mid–Columbia PUD and their power purchasers.

I want to make a point here that I think is very important. In this part of the Columbia River, when we talk about salmon, when we talk about endangered species, there is no salmon that is listed as endangered species up in this part of the Columbia River.

All the spills that have come have been primarily from the Snake River salmon, obviously the State is a tributary to the Columbia. I think, in many respects, this Vernita Agreement is a classic example of local cooperation that can be used if you allow the local input into the system.

One of the problems that I have with ecosystem management is that it is an attempt to study and devise one land management plan for an area that is the size of Texas. The goal of any Federal study over such a vast area should be to identify a range of management alternatives and desired future conditions and give local managers and communities the flexibility and authority to achieve those desired conditions. I am not sure that this works the way it ought to.

The proponents of the Eastside Project frequently contend that this study is merely being undertaken to identify environmental problems and recommend solutions. If that were the case then, why didn't the Clinton administration accept this subcommittee's original proposal making any recommendations from this study optional for local land managers? I think that is a very important point.

In addition, the recommendation of several Federal agency officials to the project's executive steering committee to protect all existing wilderness areas greater than 1,000 acres is a clear indication of this project's one-size-fits-all strategy. Of the 144 million acres included in this study, 69 million acres are privately owned. This is of tremendous concern to thousands of farmers in central Washington whose income depends on the land.

I don't think we have to go really too far, to take this example here, and extrapolate what has been done with the impact of the Endangered Species Act on private property, to say that I think my farmers have a real reason for concern on this.

I would also like to recommend, as you go through this, that landowners be compensated if they can prove that their land has been devalued as a result of this study. After all, from my understanding, this is a constitutional right. The Fifth Amendment says that very clearly, that the government has a right to take property but if property is taken from the public there ought to be compensation.

If the interagency team that is doing this study is confident that property rights will not be compromised under this plan, then they should have absolutely no problem, in my mind, of supporting some sort of compensation, if that is, in fact, included in their final draft.

So finally, Mr. Chairman, that is the paraphrase of my remarks.

I would like to thank you very much for inviting me to testify and submit testimony here. And if you have any questions after Congressman Chenoweth speaks, I will be glad to respond.

[The information follows:]

Statement of the Honorable Doc Hastings
House Interior Appropriations Subcommittee
Interior Columbia Basin Ecosystem Management Project Hearing
May 7, 1996

Mr. Chairman, I want to commend you for holding this hearing this morning to review the Interior Columbia Basin Ecosystem Management Project (ICBEMP), better known as the Eastside Ecosystem Study. I also want to thank my good friend and colleague from Washington State, Representative George Nethercutt, for his tireless attention to this issue.

Mr. Chairman, the Eastside Ecosystem Project is of great importance to me because virtually my entire Congressional district is included in this unauthorized federal study. It is of tremendous concern to my constituents for two reasons--1) the lack of adequate local input in its management approach to federal lands; and 2) the failure to provide safeguards protecting private property.

Lying just east of the Cascade Mountains and extending from Canada to Oregon, Washington State's 4th Congressional District is dominated by irrigated agriculture and other resource based industries. This arid area has benefitted from irrigation projects which deliver water from the Columbia and Yakima Rivers to produce more than 50 percent of our nation's apples. Timber, grazing, hydroelectric power, and the production of dozens of other fruit and vegetable commodities dominate the landscape.

My constituents take great pride in preserving these magnificent natural resources. However, in recent years, they have seen the quality of some of them deteriorate due to onerous federal regulations. During the summer of 1994, thousands of acres of pristine national forest land in our northern counties and the wildlife that inhabited these areas were devastated by severe wildfires. While drought conditions were a major factor, overly burdensome logging restrictions to protect the northern spotted owl and other endangered species played a pivotal role in the massive build up of fuels that led to this tragedy.

Along the same lines, many of our area's farmers have become increasingly frustrated by federal restrictions which prevent them from using newer and safer pesticides on their crops. This has led to the continued use of older, more dangerous chemicals which were allowed onto the market when science was less accurate and overall standards were lower. As a result, aerial spraying continues to be used when it does not have to be--hindering food safety and endangering the lives of consumers and children.

At the same time, my constituents are also well aware of the environmental success stories that have resulted when federal agencies have permitted maximum input from the local community. A good example of this is the Vernita Bar Agreement of 1988, which included the Mid Columbia Public Utility Districts, Bonneville Power Administration, the National Marine Fisheries Service (NMFS), state agencies, and local tribes.

Under this agreement, the Grant County PUD is required to shape instream flows during the fall spawning period to discourage fish from spawning at high elevations. This is accomplished by maintaining low flows during the daylight hours when fish do most of their spawning and allowing flows to run higher at night.

The process of allowing salmon to spawn lower on the Bar requires less water from the power system to protect salmon eggs until they leave the following spring. This operation is the reverse of the normal energy cycle and is possible only through the cooperation of the Mid Columbia PUD's and their power purchasers. Through this common sense and mutually agreed upon partnership, the Mid Columbia's play an important role in providing habitat for 30 percent of the salmon that spawn in the area without limiting their river projects which are so vital to the success of the local economy.

Because of Central Washington's experiences with federal control of our resources, my constituents are very concerned about the potential ramifications of the Eastside Ecosystem Project, which attempts to study and devise one land management plan for an area the size of the state of Texas. The goal of any federal study over such a vast area should be to identify a range of management alternatives and desired future conditions and give local land managers and communities the flexibility and authority to achieve these desired conditions. Regrettably, this project fails miserably to meet this standard.

The top down, one-size-fits-all ecosystem management approach advocated by this study fails to recognize the vast diversity of our natural resources in the Columbia Basin. It also ignores the talents and wisdom of local citizens. Rather than spending $25 million on this study, this money would have been much better spent if it were allocated to local Forest Supervisors, BLM area managers, and county governments to fund personnel and on-the-ground management.

Proponents of the Eastside project frequently contend that the study is merely being undertaken to identify environmental problems and recommend solutions. If that were the case, why didn't the Clinton Administration accept this subcommittee's original proposal making any recommendations from this study optional for local land managers?

In addition, the recommendation of several federal agency officials to the Project's Executive Steering Committee to protect all existing roadless areas greater than 1,000 acres is a clear indication of this project's one-size-fits-all approach. While it may make perfectly good sense to preserve many of these areas in their most natural state, National Forest roads can be used for a variety of important forest management tasks, including the enhancement of riparian and wildlife habitat, removal of dead and dying trees, and fighting catastrophic wildfire. I would hate to see us repeat the same mistakes that led to the severe wildfires in my area two years ago because we limited the options available to local land managers to make wise management decisions on the lands they know best.

Of the 144 million acres included in this study, 69 million acres are privately owned. This is of tremendous concern to the thousands of farmers in Central Washington whose entire livelihoods depend on the protection of private property rights. Once again, federal officials, who comprise most of the Interagency Team devoted to putting this ecosystem plan together, argue that they have no intention of compromising this basic, Constitutional right. However, the White House's refusal to accept this subcommittee's recommendation to guarantee protection of private property beyond this fiscal year calls into question the team's commitment to this principle.

Mr. Chairman, if completion of this study is absolutely necessary, I recommend that the original language in Section 314 of the Fiscal Year 1996 Interior Appropriations bill be implemented. This would guarantee that implementation of this study's recommendations would be left to the discretion of local land managers and their communities. It would also protect private property rights.

I would also strongly urge that land owners be compensated if they can prove that their land has been devalued as a result of this study. If the Interagency Team is as confident as they say they are that property rights will not be compromised under this plan, they should have no problem supporting some form of compensation.

Rather than repeat the land management and regulatory blunders of the past, I would hope that the Interagency Team would emulate the spirit of the Vernita Bar Agreement by incorporating maximum local input into the process. This will ensure that our local economies in the Northwest are protected. At the same time, local input will also produce a cooperative approach to land management decisions leading to more effective protection of our area's resources.

Again, I want to thank you for inviting me to testify this afternoon and express the concerns of Central Washington on the importance of reforming this misguided project.

Mr. REGULA. Thank you.

I thought what we would do today is have the two Members finish. We will have questions from the subcommittee and that way they would not be held up. Then we will have the panel of apparently four that will testify. We will defer questions until after the Chief and the Acting Director have spoken, and then there will be questions that the Members can ask of them. So we are happy to welcome the gentlelady from Idaho.

Your statement will be made a part of the record, and you can summarize for us.

Mrs. CHENOWETH. Thank you, Mr. Chairman.

It is an honor to be asked to testify in front of your committee and gentlemen of the committee. The Interior Columbia Basin Ecosystem Project, as you know, is an environmental exercise and its a venture of the Bureau of Land Management and the Forest Service. I believe it also includes the National Marine Fisheries Service and the Fish and Wildlife Service.

This project is an extraordinarily expensive undertaking that was absolutely never authorized by the United States Congress. While I completely agree with the goals of responsible environmental policy, all Northwestern areas, including myself, do want a clean and healthy environment, my concerns are with the price tag and the scope of this project and the fact that the plan exceeds its congressional authority and has disregarded local input.

The study area, as you have heard, 144 million acres of the Northwest, an area that is larger than the size of Texas, 75 million of those acres are private land. The BLM and Forest Service have already spent nearly $25 million and they request another $6.7 million in fiscal year 1996.

Mr. Chairman, that $25 million has not employed one additional person in land resource jobs; nor has it built a greener, cleaner environment. I know we are only in the planning process, but that seems to be all that we are doing lately, is planning. The Forest Service and the BLM expenditures have not even laid the groundwork for programs to give the Northwest a healthier environment.

This particular project was developed under a Memorandum of Understanding entered into by the Forest Service, Fish and Wildlife Service and several other Federal agencies. Under that MOU, the planning efforts have been paid for by funds from the participating agencies, but funds which were never intended to be used in this manner, nor authorized by Congress.

As a result, funds for implementation of good management projects, such as timber salvage efforts, juniper clearing on grazing lands and the development of water systems have been instead used for ecosystem planning.

Furthermore, the ecosystem team charged with carrying out the project is not within any one Department, and as a result, is not subject to any rules or regulations that govern the terms of the Memorandum of Understanding. The ecosystem team's findings, however, will govern local plans, issued by the Forest Service and the BLM, providing the agencies a method of bypassing their own rules and regulations.

The Forest Service and the BLM will be able, on the basis of ecosystem planning alternatives and records of decision, to amend their plans and set standards and guidelines for management outside the parameters of their own rules and regulations. Thus, removing another element of management from congressional oversight. This is of great concern to me.

In fact, this very subcommittee last year refused, with this recognition, to appropriate the $6.7 million requested by the agencies to complete the project and implement new management plans; instead, awarding only $600,000 for the agencies to complete and then terminate the project.

Along with the lack of congressional authorization, I am very concerned that the manner in which this project is being carried out is driving a further wedge between county, State and Federal agencies and authorities. This project preempts legitimate State and local processes and conservation efforts that are already in place.

I would like to enter into the record a letter from our Governor, Phil Batt, which responded to a memorandum issued by the ecosystem planning team.

Mr. REGULA. Without objection, it will be a part of the record.

[The information follows:]

ADMINISTRATIVE RECORDS

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STATE CAPITOL
BOISE 83720-0034

PHILIP E. BATT
GOVERNOR

(208) 334-2100

November 16, 1995

Mr. Michael Spear, Regional Director
U.S. Fish and Wildlife Service
911 N.E. 11th Avenue
Portland, OR 97232

Mr. William Stelle, Regional Director
National Marine Fisheries Service
7600 Sand Point Way, N.E.
Seattle, WA 98115-0070

Mr. Chuck Clarke, Regional Administrator
Environmental Protection Agency, Region X
1200 6th Avenue
Seattle, WA 98101

Dear Messrs. Spear, Stelle, and Clarke:

I recently received a copy of your agencies' memorandum of October 26, 1995, to the Upper Columbia River Basin EIS (UCRB-EIS) Executive Steering Committee outlining concerns being developed for the EIS. While I realize that your comments are from one federal agency to another, they raise serious questions and concerns for state agencies within Idaho.

I am concerned about your comment, "We are particularly concerned that the draft EISs do not provide a comprehensive strategy to ensure conservation of aquatic and riparian dependent species and the protection of water quality." This comment brings into question the effectiveness of Idaho's water quality protection programs. A comprehensive water quality protection plan is currently being implemented across the state. This plan has passed the Idaho Legislature and was originally endorsed by the EPA. The protection and management of water quality, particularly from non-point sources, is a responsibility of the Idaho Division of Environmental Quality.

Additionally, the above statement seems to completely ignore Idaho's efforts to develop a statewide conservation strategy for bull trout, an effort that was endorsed and praised by Mr. Spear earlier this year. It is also important to note that bull trout are a resident fish to be managed by the Idaho Department of Fish and Game, unless they are listed under the federal Endangered Species Act.

Mr. Spear, less than six months ago during the Bull Trout Symposium, you noted, "The Fish and Wildlife Service has been far too quick to list species and grab authority away from the states for what is essentially a resident species, as in the case of bull trout." As I promised during that same symposium, I am in the process of developing a comprehensive state plan to protect the bull trout. Representatives from the both the U.S. Fish and Wildlife Service and the Forest Service are directly involved in the creation of this plan, and I expect a draft to be completed by the end of the year. Will this entire effort be undercut by the development of a "comprehensive Aquatic Conservation Strategy" by the U.S. Fish and Wildlife Service, NMFS, and the EPA? Such an action appears to eliminate the opportunity for any state to develop its own conservation plans for resident species and ignores the effort and money Idaho has already expended on this project.

Your memo goes on to note, " . . . the draft EIS needs to incorporate a comprehensive monitoring program that: (1) identifies the current baseline of habitat and water quality, (2) evaluates the implementation of land management actions, (3) evaluates the effectiveness of the activity in reaching the identified goals and objectives of the watershed, and (4) includes a linkage to . . . meeting relevant water quality and habitat criteria." I agree that such a monitoring program is needed for water within the state of Idaho. As I mentioned earlier, Idaho has adopted a new program to implement state water quality standards as well as a surface water quality program. Your memo appears to ignore the existence of this state program, and certainly fails to speak to any coordination of the state's program and the UCRB-EIS.

I am deeply concerned by an attitude that either ignores or discounts the ability of states to protect water quality and resident aquatic species. In this time of tightened resources for all public agencies, I do not understand why federal agencies insist on creating new strategies when better coordination and reliance on the existing state programs will accomplish the same objectives.

I look forward to hearing from each of you on how Idaho's efforts to protect bull trout and implement the Clean Water Act can be employed in the UCRB-EIS. I cannot accept a separate effort which undermines the recent efforts undertaken by the state – many of which were originally undertaken at the urging of your federal agencies.

Very truly yours,

Philip E. Batt

Philip E. Batt
Governor

PEB:jbk

cc: Senator Larry Craig
Senator Dirk Kempthorne
Representative Mike Crapo
Representative Helen Chenoweth
Governor Racicot
Jerry Conley, Idaho Department of Fish and Game
Wally Cory, Idaho Division of Environmental Quality
UCRB-EIS Executive Steering Committee

Mrs. CHENOWETH. Thank you.

Governor Batt was responding to an assertion that a memorandum that an Environmental Impact Statement from the ecosystem project must include a comprehensive strategy to ensure conservation of aquatic-and riparian-dependent species and the protection of water quality. Governor Batt was concerned that this interagency planning team was undercutting the authority of the State to oversee water quality, which by statute fails—or falls under the Idaho Division of Environmental Quality.

In addition, Governor Batt expressed his displeasure that the planning team was ignoring his efforts to preserve native Idaho bull trout. Just about any private property or range management expert will state categorically that you cannot set one body of standards and guidelines by which the lush forests of north Idaho and the arid rangeland of southwestern Idaho can both be managed. That is the reason local input is critical when developing BLM resource management plans, which include only one resource area and forest plans which are limited to one particular local forest.

Local input provides essential data and analysis regarding the special land, climate and economies specific to any given region. Some of the agencies here, I am sure, will claim that they have involved local entities, such as county organizations and resource support groups into that process.

However, all of these groups have expressed to me that while it appears they have had a voice in the process, when they have seen the memorandums and drafted proposals, they observed that virtually none of their suggestions or data were incorporated into these draft plans. Furthermore, they have seen agreements or compromises that they have made in various meetings with the agencies ignored or abandoned.

Many have expressed to me their suspicions that the goals of the project is to generate some sort of scientific data that would justify shutting down traditional economic uses of the forest and the land, such as grazing and logging, and they feel that has proven to be true. It is becoming more clear to them that this project has had very little to do with genuine biological research but more to do with social planning and policy.

Mr. Chairman, another barrier that thwarts public participation for this project is the fact that the project is so immense and the draft is written in such technically obtuse language that the members of any particular locality would be impossibly perplexed in trying to understand the draft and provide meaningful input.

I have spoken to some of the finest and most experienced field experts in both the range and the forest areas who have spent a great deal of time reviewing and trying to understand the intricacies of the project materials. In fact, one particular expert who has decades of experience and knowledge in land management policies, told me that it is virtually impossible to read and understand the proposed alternatives.

Now, I ask you, if this expert is having a hard time understanding this overall convoluted document, how can we expect regular members of the public to have any clue as to its contents and ramifications? Keep in mind that this ecosystem project is gargantuan in its task, to develop a plan for land management of all lands from Canada to Nevada and from the eastern side of the Cascade Mountains to Montana, enveloping all of Idaho.

Federal agencies should be making sincere attempts to incorporate State and local strategies. Instead, State and local input have been ignored, Mr. Chairman.

While this all means that this ecosystem plan will be developed without public input of any meaningful type, but will be used by the Forest Service and the BLM to amend their local plans.

Furthermore, the BLM has announced that it will consider the EIS of the Ecosystem Project to constitute the public input needed for the amendment of the local plans and will conduct no further need for review, no hearings. Thus, the local plans of the management agencies will be amended without the public input required by NEPA and by FLPMA and other Federal statutes.

Finally, Mr. Chairman, I am concerned that the unorthodox manner and lack of congressional authority under which this project is being carried out will almost certainly be subject to intense and costly litigation.

Mr. Chairman, my district has been threatened with potential shutdown of all activities on various Federal lands many times, thanks, to extreme environmental groups who don't understand that industry and environmental protection can and should coexist. While we don't need another Federal project to encourage division and litigation, what we do need is to start working together for final solutions.

Mr. Chairman, I hope my testimony will give this committee some sense as to the great cause for concern that we have out in Idaho about this particular project. At the very least, it has been unauthorized spending and it has become a boondoggle that has yielded no fruitful results, but only confusion.

I would recommend that Congress cut off this unauthorized undertaking and at the very least limit its scope to the parameters set by you earlier on. We need to bring the policy that we are setting out for public and private lands back to the people.

Again, thank you, Mr. Chairman, for allowing me to testify.

[The information follows:]

Testimony of Representative Helen Chenoweth
Interior Appropriations Oversight Hearing
on the Interior Colombia Basin Ecosystem Project
May 7, 1996

Mr. Chairman, I'd like to first thank you and the members of this Committee for allowing me to come before you today and talk about a very important issue to my constituents.

The "Interior Columbia Basin Ecosystem Project," as you know, is an environmental assessment venture of the Bureau of Land Management and Forest Service. The project is an extraordinarily expensive undertaking that was never authorized by Congress.

I agree completely with the goals responsible environmental policy -- all northwesterners, including myself, want a clean, healthy environment. My concerns are with the price-tag and scope of this project, and the fact that the plan exceeds its Congressional authority and has disregarded local input.

The study-area covers 144 million acres in the Northwest -- about the size of Texas. Seventy-five million of those acres are private land. The BLM and Forest Service have already spent nearly $25 million, and they requested another $6.7 million in FY 1996.

Mr. Chairman, that $25 million has not brought us a cleaner, greener environment. The Forest Service and BLM expenditures have not even laid the groundwork for programs to give the northwest a healthier environment. All we have to show for the money these agencies have spent are more punitive regulations and more bureaucracy.

This particular project was developed under a Memorandum of Understanding entered into by the Interior, Forest Service, Fish and Wildlife Service, and several other federal agencies. Under that MOU, the planning efforts have been paid for by funds from the participating agencies -- funds which had been intended by Congress for other uses. As a result, funds for implementation of good management projects, such as timber salvage efforts, juniper clearing on grazing lands, and development of water systems have been used for "ecosystem planing."

Furthermore, the "ecosystem team" charged with carrying out the project is not within any one department, and as a result, is not subject to any rules or regulations. The ecosystem team's findings, however, will govern local plans issued by the Forest Service and the BLM, providing the agencies a method of bypassing their own rules and regulations. The Forest Service and BLM will be able, on the basis of "ecosystem planning alternatives" and Record of Decision, to amend their plans and set standards and guidelines for management outside the parameters of their own rules and regulations -- thus removing another element of management from congressional oversight.

This very subcommittee last year refused to appropriate the $6.7 million requested by the agencies to complete the project and implement new management plans, instead awarding only $600,000 for the agencies to terminate the project.

Along with the lack of Congressional authorization, I am concerned that the manner in which this project is being carry out is driving a further wedge between state and federal agencies. This project preempts legitimate state and local processes and conservation efforts that are already in place. I would like to enter into the record a letter from Idaho State Governor Phil Batt, which responded to a memorandum issued by the ecosystem planning team. Governor Batt was responding to a assertion in that memorandum that an Environmental Impact Statement from the ecosystem project include a "comprehensive strategy to ensure conservation of aquatic and riparian dependant species and the protection of water quality."

Governor Batt was concerned that this intra-agency planning team was undercutting the authority of the state to oversee water quality, which by statute falls under the Idaho Division of Environmental Quality. In addition, Governor Batt expressed his displeasure that the planning team was ignoring his efforts to preserve native Idaho Bull Trout.

Just about any private property or range management expert will state categorically that you cannot set one body of standards and guidelines by which the lush forests of North Idaho and the arid rangeland of southwestern Idaho can both be managed. That is the reason local input is critical when developing BLM "resource management plans" which include only one resource area, and Forest Service Plans, which are limited to one particular local forest. Local input provides essential data and analysis regarding the specific land, climate, and economics specific to that area.

Some of agencies here I'm sure will claim that they have involved local entities, such as county organizations and resource supported groups into the process. However, all of these groups have expressed to me that while it appears they have a voice in the process, when they have seen the memorandums and drafted proposals, they observe that virtually none of their suggestions or data are incorporated into the plan.

Furthermore, they have seen agreements or compromises that they have made in various meetings with the agencies ignored or abandoned. Many have expressed to me that their suspicion that the goal of the project is to generate some sort of scientific data that would justify shutting down traditional economic uses of the forest and lands such as grazing and logging has been proven true. It is becoming more clear to them that this project has had very little to do with genuine biological research, but more to do with social policy.

Mr. Chairman, another barrier that thwarts public participation for this project is the fact that the project is so immense, and the draft is written in such technically obtuse language, that the members of any particular locality would be impossibly perplexed in trying to understand the draft and provide meaningful input.

I have spoken to some of the finest and experienced field experts of both the range and the forest who have spent a great deal of time reviewing and trying to understand the intricacies of the project materials. In fact, one particular expert who has decades of experience and knowledge in land management policies told me that it is virtually impossible to read and understand the proposed alternatives. Now I ask you, if this expert is having a hard time understanding this over convoluted document, how can we expect regular members of the public to have any clue as to its contents?

Keep in mind that this ecosystem project is gargantuan task -- to develop a plan for land management for all lands from Canada to Nevada, and from the eastern side of the Cascade mountains to Montana, enveloping all of Idaho. Federal agencies should be making sincere attempts to incorporate state and local strategies -- instead, state and local input is being ignored.

What this all means is that this ecosystem plan will be developed without public input of any meaningful type, but will be used by the Forest Service and BLM to amend their local plans.

Further, the BLM has announced that it will consider the EIS of the ecosystem project to constitute the public input needed for the amendment of the local plans, and will conduct no further NEPA review. Thus, even the local plans of the management agencies will be amended without the public input required by NEPA, FLPMA, and other federal statutes.

Finally, Mr. Chairman, I am concerned that the unorthodox manner and lack of Congressional authority under which this project is being carried out will almost certainly be subject to intense and costly litigation. Mr. Chairman, my district has been threatened with potential shut-down of all activities on various federal lands many times thanks to extreme environmental groups who don't understand that industry and environmental protection can and should co-exist. We don't need another federal project to encourage division and litigation -- we need to start working together to find solutions.

Mr. Chairman, I hope my testimony will give this committee some sense as to the great cause for concern that we have out in Idaho about this particular project. At the very least, it has been unauthorized spending boondoggle that has yielded no fruitful result -- only confusion. I would recommend that Congress cut off this unauthorized undertaking, and at the very least limit its scope to the parameters set by Congress. We need to bring the policy that we are setting for our public and private lands back to the people.

Mr. REGULA. Thank you.

I just at this point have one question for both of you.

Do you think there is any merit to looking at a river basin in total, in terms of management of the resources, both environmentally and from the standpoint of the usage, recreation, production, et cetera? Should we think in terms of taking a river basin in total or do you think it ought to be done by bits and pieces?

Mr. HASTINGS. Well, I think that any sort of studies that have to do with large areas make a great deal of sense. Let me just give you one example. Maybe it doesn't answer your question directly but it sheds light, I think, on some of the misinformation that is out there.

I will take the Columbia River because the Columbia River, it first comes into Washington and it is really wholly within my district, at least where the dams are and so forth. The Columbia Basin Project is a result of Federal activity, Bureau of Reclamation, by building Grand Coulee Dam that irrigates all of the Columbia Basin Irrigation District, some 500,000 acres right now. It is authorized for a million. We haven't done anything on the second half yet.

But my point in making this is that the Columbia River is so vast, yet, only about 2 percent of the water flow irrigates all of the Columbia Basin Irrigation District. I just point this out to you. If you have a study involved on the Columbia River and all its tributaries, it should be all-encompassing and it should be diverse enough to take into effect all of the industries, whatever, municipalities, everybody.

Mr. REGULA. That is what I am saying. It should go into economic issues as well as environmental?

Mr. HASTINGS. Absolutely. There is no question about that. I mean, to me, when I look at some of these things, I look at the reasons for these sort of studies, is because we have a lack of resources. Yet when you take the immensity of the Columbia Basin Project, 500,000 acres and realize only 2 percent of the water flow behind the Grand Coulee Dam irrigates that whole area, it is a drop in the bucket.

We could irrigate a lot more if we wanted to, yet we are led to believe there is a scarcity of water, which, of course, is simply not the case. So I am not sure I answered your question directly but, obviously, there should be resources and we should look at that. Economic factors ought to be put into the mix. There is just absolutely no question about it.

Mr. REGULA. So you are saying the Columbia River Basin perhaps should take into account more than just the environmental dimensions?

Mr. HASTINGS. Absolutely. There is no question about that.

Mr. REGULA. Helen.

Mrs. CHENOWETH. Mr. Chairman, I would like to bring a different perspective to your question. That is that in Western Water Law, it is pretty clear that it has been set forth that the States really own the water. While the Federal Government has jurisdiction in the Department of Commerce for transportation and even protection of the anadromous fish because it crosses State lines.

Nevertheless, I think that any jurisdiction that the Federal Government may take over, any waterway, even including the Columbia River, must confine its investigation to the jurisdictional authority set out by this Congress. Congress never authorized the Forest Service or the Fish and Wildlife Service to manage the rivers. Quite the contrary. This concept, by the way, has never been overturned in whole or in part by the United States Supreme Court. The most telling and instructive decision that the Court has rendered on Western Water Law and who should control the water is a case entitled California versus Bureau of Reclamation, decision, written by Judge Rehnquist in 1978. That has never been overturned in whole or in part.

So when we get into having multiple agencies manage whole river systems and watersheds, a Memorandum of Understanding being their only authority, I think we are moving dangerously and precipitously close to not only allowing them to engage in massive land use processes but in moving in on the State authority to manage its own water.

Mr. REGULA. Just out of curiosity, there are a number of dams on the Columbia, as I understand. Was there a State sanction of any of these dams? Or was the assumption made—I am sure they were built with Federal funds. Was the assumption at the time, and obviously that was in years past, that the Federal Government had total control?

Mrs. CHENOWETH. I might start with that and then Doc Hastings can straighten out anything that I haven't touched.

When the Reclamation Acts were passed in 1904, and then subsequent amendments to those acts, it very clearly laid out that those acts were set forth to bring water to the arid West and to provide for flood control. The Reclamation Acts have been very clear, that nothing contained in those acts should override State authority to manage their own water, that has remained very solid. So those dams generally were built under the Reclamation Act. Some of those dams were built by Corps of Engineers under the Federal Flood Control Act, too.

Mr. HASTINGS. I think Mrs. Chenoweth has answered that directly. She, I think, is more knowledgeable on some of that history. But I will say this, in the Mid-Columbia River, where I am, you have dams that are Federal dams, but you also have dams that are built locally; like I mentioned, the Mid-Columbia PUDs. They have five dams in that area, going right through the center of my district. Grant County has——

Mr. REGULA. This is on the Columbia?

Mr. HASTINGS. Right on the Columbia. They are all on the Columbia. Grant County has two dams on the Columbia. The one farthest south, the Priest Rapids is the one that really controls all of the water flow in the dam north all the way to the Canadian border. They are all hooked up and those flows work very well because of the agreements that they have had. But Grant County has two dams. Chelan County PUD has two dams.

Mr. REGULA. These are hydros?

Mr. HASTINGS. Yes, and PUDs are public utility districts.

Mr. REGULA. Yes. I understand.

Mr. HASTINGS. Chelan County has two of those dams, Douglas County has one of those dams and Grant County has two. They are all locally owned. They have agreements with the City of Seattle, Tacoma, wherever. They sell all of the Northwest. But those are built all with local dollars and not Federal.

Mr. REGULA. In effect, you have had State and Federal involvement in the Columbia?

Mr. HASTINGS. Right.

Mr. REGULA. Per se?

Mr. HASTINGS. Yes. Grand Coulee Dam's primary reason, as I understand, was for power generation but also for irrigation? Part of the repayment of using that water is to pay back the cost of building Grand Coulee Dam.

Mr. REGULA. Who manages the sale of the water?

Mr. HASTINGS. BPA. The water?

Mr. REGULA. Yes.

Mr. HASTINGS. Bureau of Reclamation.

Mr. REGULA. So the States are not involved on the irrigation side of it?

Mrs. CHENOWETH. In the sale of the water?

Mr. REGULA. Yes.

Mr. HASTINGS. I am not sure you would say it is the sale. It is the use of the water. I think they regulate that.

Mr. REGULA. So the farmer is not paying?

Mr. HASTINGS. The farmer is paying, oh, yes. He is paying for water, but this is part of the agreement. I would have to go back and probably correct all of that, what I am saying here off the top of my head. But they have a contract. When they sign that contract to use the water and the power, they are both together and there is a repayment schedule over a long period of time. They had access to a certain amount of power to run the irrigation.

Mr. REGULA. Mr. Yates?

Mr. YATES. Thank you.

Mr. REGULA. Use the mike.

Mr. YATES. I have the impression that the States don't own the water within these States. I have the impression that the water is owned by various entities. If my memory serves me right, the State of Washington tested that theory with the Indians, and Judge Bolt came to the conclusion in a decision that the Indians were entitled to at least half the water, and that opinion was sustained by the Supreme Court.

It isn't that I am denying States' rights as far as the water is concerned. What I am saying is there is no absolute right in the State; that certainly the Federal Government has the right to water for the uses of federal lands and while it may be administered by the States, I think the ownership of that water is something else again.

Now, is my impression incorrect?

Mrs. CHENOWETH. Mr. Chairman, Mr. Yates, I certainly wouldn't want to challenge you. But as I understand it, the Bolt decision did not overturn the California versus BOR in that the States do own the water. That is why we have State Departmental water resources in each State.

Even the unappropriated water is owned by the State until the use right, which becomes a property right, is appropriated and proven up. The Bolt decision verified this. While the tribes have access to water through the Winters Doctrine for application for agricultural and through the McCarran amendment, to get into Federal court to apply for water rights, to become a party in any adjudication, it is not a given that the tribes have a water right. They were given rights to hunt and fish and to use the resources.

Mr. YATES. Don't they also have treaty rights to the water?

Mrs. CHENOWETH. I believe they have treaty rights to fish in the water, but they have no ownership rights other than that which has been applied to the reservation.

Mr. YATES. With respect to the question of not consulting local people, I have the impression that there will be EIS statements that are required, that the provisions of NEPA will be followed and that under those provisions, it is mandatory that consultations be held with local officials. Is my impression correct?

Mr. HASTINGS. Well, let me just respond that consultations are fine, and I think that is something that you ought to strive for. Ultimately you will get into part of this decision making process where a decision has to be made. And the question then arises, and very legitimately, in my mind, is will part of the decisionmaking be made by the local authorities rather than just consulting? I suppose that is a gray area and one could argue that all the way along.

What I am suggesting is there has to be a mechanism involved, frankly, where the localities, the local jurisdictions, have more than just consultive abilities; they go beyond that.

Because, ultimately, the decision is going to have to be made and like I cited in my testimony, the Vernita Agreement which was not—nobody said that it had to be done. It was just done because it made good sense and it was taken care of.

Mr. YATES. Well, I can't believe that in a project this vast that there will not be consultation along the road with local agencies, cities, townships, and counties. I don't know about questions of control. That is something else again, and perhaps that is where you and I may differ on——

Mr. HASTINGS. Sure.

Mr. YATES [continuing]. What the extent of the consultation should be and where it should lead. But it seems to me that because this is such a vast project, crosses State lines and covers numbers of forests as well as streams, it is the kind of thing that can't be done by local groups as such. And that the Federal Government—if, indeed, this is a plan that is desirable to have a review of the ecosystem of an area of the Columbia River Basin, that it is something that would have to be done by the Federal Government. And that is what I see this Columbia River Basin effort to be.

As a matter of fact, as I read the statement by Mr. Thomas, who will testify to it later, he said this: "The project was developed to respond to heightened concerns about resource conditions, keeping in mind the significant changes in resource conditions and management may have on local communities. They are concerned about what they would have—what changes would be had on local communities.

These concerns are of broad scale, including forest and rangeland health, the listing of Snake River salmon, bull trout protection, species associated with old forest structure and treaty and trust responsibilities to American Indian tribes." Mr. Thomas continues, "We understood this project to better understand these complex issues and their interrelationships and to make decisions on those issues that are more effectively and efficiently dealt with on this broad scale."

So I think that the project, if indeed it is a worthy project, has to be done on this kind of a grand scale, covering the whole basin, rather than building it up town by town or city by city. And I don't know whether that is what you had in mind. But that is why I suggested that the EIS consultations will be held at various stages. Otherwise, you can throw it out in the courts.

Thank you, Mr. Chairman.

Mr. HASTINGS. Well, I would just like to generally respond to that and perhaps the differences that we may have. Where do we meld together that gray area of where local input ought to be the law, so to speak, and where ought that to be overridden? I think that the closer you can make those decisions to the people affected, the better off you are.

Mr. YATES. Will you yield for a moment?

Mr. HASTINGS. Sure.

Mr. YATES. I think that is somewhere down the line, really, that you are in the concept stage now and you are trying to organize this and get it together again.

Mr. HASTINGS. If I may just suggest——

Mr. YATES. Sure.

Mr. HASTINGS. Unless that is spelled out I think very directly as you start this process, then I think you will constantly have the suspicions down the line. I think you can cite those examples where probably in other areas those suspicions were well-founded. I will cite the Endangered Species Act as one example where maybe somebody in the early seventies had a suspicion of this and everybody said don't worry about it. It will be taken care of. We will have local input, while the good intentions went awry. And I am just suggesting there are people in my district, and I suggest there are people in Congresswoman's Chenoweth's district that feel the same way. Unless these things are addressed right up front, you are going to have the suspicion right all the way along.

Mr. YATES. May I also quote one last statement by Mr. Thomas? He writes, "The intent of the project is not to affect private property water rights."

Mr. HASTINGS. Mr. Yates, would you yield just for a moment there?

Mr. YATES. Yes.

Mr. HASTINGS. Would you on my behalf ask him why they would not put that then in every document that they were to submit, whether it is a draft EIS, a final EIS?

Mr. YATES. This is in the record. This is going to be in the record so you can always point to it.

Mr. HASTINGS. Right. I think that needs to be emphasized over and over because that is what I hear from my constituents.

Mr. YATES. The next sentence you will want even more.

Mr. HASTINGS. Okay.

Mr. YATES. Let me just repeat what I said. Chief Thomas writes. "The intent of the project is not to affect private property or water rights. Resource decisions made with full public participation will apply only to lands administered by the Forest Service and the BLM, not to State or private lands."

So it seems to me that they have in mind the kind of protections that you are seeking. I would think that once having declared themselves, as they have here, we on the committee will try to see that they adhere to that.

Mr. HASTINGS. Well, Mr. Yates, I certainly appreciate that and I hope that would be exactly the intent as this thing proceeds. But I would just—I would just suggest that certain people in my district have a bit of a suspicion that these good intentions and these guarantees get lost some place down the line. And we ought to, I think, try to the best extent that we can, make sure that doesn't happen before we start, rather than try to come back and correct something where there has been——

Mr. YATES. What you are saying is the road to this project is paved with good intentions?

Mr. HASTINGS. Yes.

Mr. REGULA. Mr. Nethercutt.

Mr. NETHERCUTT. Thank you, Mr. Chairman.

Congressmen Hastings and Chenoweth, thank you for being with us and for your testimony. I think it is noteworthy that this subcommittee adopted language which would accomplish the purposes that you both have discussed here today; that is, assuring that we go slowly in the process to the point where we have adequate public input and congressional input before we have finality. I will note that the full committee approved the Section 314 language without objection, the House passed the Section 314 language without objection, and then it went downhill from there, so to speak.

I know you all are from districts that are not dissimilar to mine, and that is rural timber-intense districts. It is likely, it is possible, that the impact of this study and the results of this study could have consequences for the timber communities that you represent? How economically important is the timber industry in various aspects or parts of your district, and if the study results in a restriction of logging on Federal lands within your district, what would the impact be?

Mrs. CHENOWETH. Mr. Chairman, Mr. Nethercutt, there would be grave impact. What we envision right now to be the ramifications of this project is a greater process than what our lumber companies have to go through in the bidding process or our mining companies have to go through in getting their plans approved.

Even areas that are very remotely removed from streams that contain salmon habitat still must be signed off by the National Marine Fisheries Service, but that is one agency. Now we see a multitude of agencies and a bigger plan. As you know, the Northwest has been seriously, seriously impacted by management decisions under the Endangered Species Act.

I do want to say for the record, Mr. Nethercutt, that while we all agree that I too, would like to see my children and grandchildren be able to fish for salmon in the rivers and streams of our States. However, having spent hundreds of billions of dollars in lost power revenues and ratepayer revenues and direct tax subsidies, this year not one sockeye salmon returned to Red Fish Lake. So, you see, we are not improving the specific projects but we are continuing to build mounds and mounds of plans and paperwork. Somehow, sometime, we have to reverse this, and I think this is the time.

Mr. REGULA. You triggered my thinking here. You said this goes as far as the salmon. As I understand it, Federal jurisdiction is only navigable waters.

My question is: What's the reach of this? Does it go to a spring that comes out of a hill in terms of the study?

Mrs. CHENOWETH. Well, as I understand it, in commerce, the Federal Government has jurisdiction or the ability to use those rivers as highways.

Mr. REGULA. Right.

Mrs. CHENOWETH. Unimpeded.

Mr. REGULA. Right.

Mrs. CHENOWETH. However, someone using the highway or the river cannot demand that a mountain be moved or things be made more convenient for the traveler. However, in our State law, the State land boards of each of our States own the beds and banks of streams and rivers from high watermark to high watermark, as well as the water itself. So while commerce has demanded, from the beginning of our time in government, that we be able to travel the rivers and the highways unimpeded. Nevertheless the beds and banks and streams from high watermark to high watermark still do belong to the States. So while, you know, we hope that some day there will be more salmon in our streams. We haven't succeeded with the massive amount of investment and planning.

I mean, planning has resulted in a loss of our economic benefits and viability and, Mr. Chairman, Mr. Nethercutt, it has even come full circle so that we are now seeing an environmental deterioration in our rivers and because of lack of management, good management in our watersheds, we are seeing a higher pollutant load in our streams which results in devastating damage to our salmon habitat.

Mr. HASTINGS. I would just respond to your question, Mr. Nethercutt. In the northern part of my district, where most of the timber is, we have already been hit because of Federal actions with the Endangered Species Act, the spotted owl. The spotted owl, as you recall, was an owl that was found principally in western Washington and then it showed up in eastern Washington. There are several contracts that were suspended and, frankly, I don't think they have gone back and let those contracts.

So that had a negative effect on the industry in that part of the country. And then with the fires we were talking about, and the salvage timber bill that we both worked on very hard, also had an effect because it wasn't carried out timely enough and there were a lot of salvage, frankly, that was lost, and so I think that is fuel for the fires.

So I think, in answer to your question, if we had more restrictions on the timber industry in my district, it is going to have a more negative impact on our economy.

Mr. NETHERCUTT. Are you both finding that with a lack of activity on Federal lands, whether it is grazing or timber harvesting or other industries, that it is having any impact on private lands that have those same activities available for consumption?

In other words, if we don't harvest Federal lands, are we putting greater pressure on private lands? I think we are in my district. The more pressure we are placing on private lands puts an equal or greater impact on environmental protection or ecosystem management as well? Do you agree with that?

Mr. HASTINGS. Well, I agree that it has had an effect. I can't say specifically it has had an effect on timber lands in my district, but I think in western Washington, where you have the private timber, you have the threats coming that you may lose the value of the property because of some Federal regulation. I know there are examples in western Washington where private landowners are selling their timber prematurely, frankly, to get whatever value out of it that they feel they can get right now because they are afraid of maybe holding their land for another 5 or 10 years.

Now, that had an effect. So we are selling off resources prematurely that we ought not to be selling them off. I think that is a reaction simply of these Federal regulations. So it is having, frankly, a negative effect to the whole timber industry.

Mr. NETHERCUTT. Did you want to respond, Mrs. Chenoweth?

Mrs. CHENOWETH. Mr. Nethercutt, I really appreciate what Mr. Hastings has just told you, but also the pattern of ownership in the Northwest is very checkerboard, and so even though it may be claimed that there is not direct impact on the planning processes for the private lands, indeed that will occur because of the checkerboard nature of the private ownership and the Federal ownership—or the Federal management of lands.

Mr. NETHERCUTT. If I may just ask one final question. I don't want to take too much time of my allotment.

If you had to summarize for this committee two things, number one, what is your greatest concern about the potential problems that might come from the results of this study? And number two, do you have a recommendation of how this committee might address the issue of funding for this study in the aftermath of completion of the study? What recommendation would you make for this subcommittee?

Mr. HASTINGS. My recommendation would be very much with the conversation that I had with the Ranking Minority Member Mr. Yates. I would want to make sure right in front that private property rights were protected, number one; and number two, that local input would not be just as a consultive nature, but something much more stronger than that; and I guess in general I would want to make sure that localities, States, counties, cities, however you can drive it down to the local level, is very much involved in this process to the final decision-making, and that unequivocally that private property rights are protected. With those two things in there, then I think that certainly my constituents would have a much better feeling.

Now, like anything that's started off now, you don't know what happens as you work your way down the line. There may be very much down the line a feeling from those in my district, to ask the legitimate question, why are we getting involved in this thing? We can handle it in the first place. So the question may come eventually, why are we involved in this business at all? Haven't we marshaled and taken care of our resources very well? That question could be asked really tomorrow as well down the line. But I think that those alleviate those fears; private property and absolute certainty that the localities have some input is very important.

Mrs. CHENOWETH. Mr. Chairman, Mr. Nethercutt, I really appreciate what Mr. Hastings has said, and I would agree with him, but I would take it a step further. This is a time when the American people are asking us to downsize the Federal Government and Federal authority and return control to the local States and local units of government, and that is precisely what our people are asking for. When we had more local control, I think we can look back 20 years ago and realize that we had more sustainable resources.

So I don't think that a bigger Federal multilayered authority is going to bring us a greener, cleaner or more healthy Northwest. So I think that this committee must look at making sure that everything that is done here is within the jurisdictional authority that has already been granted by the Congress specifically. If funds have been diverted to other maybe sincerely conceived tasks, but ones that have not been authorized by the Congress, I don't think they should be rewarded with more funding.

I appreciate the courage and foresight this committee had in its last action, and I would recommend that the committee, again, give just enough money to end this, and hopefully we won't see the kind of massive land use plans that may develop out of this kind of authority.

Mr. NETHERCUTT. Thank you, Mr. Chairman.

Mr. REGULA. Thank you both for coming. You are welcome to stay.

Mr. HASTINGS. I appreciate the invitation, but I think I am late already.

Mr. REGULA. I am pleased that you would give us your perspective because obviously this affects people that you represent very significantly. So thank you. Next we have a panel of Commissioner John Howard of Union County.

Is Mr. Geisinger here?

Mr. Geisinger. David Halley.

Mr. HALLEY. Halley, sir.

Mr. REGULA. Like the comet?

Mr. HALLEY. Yes.

Mr. REGULA. And Paul Brouha.

All of your testimony will be made a part of the record. If you will summarize, it will help us. Then we will withhold questions until we have heard the last witnesses.

We will start out with Mr. Howard.

Mr. HOWARD. Thank you, Mr. Chairman. I am going to have to summarize my comments. I have——

Mr. REGULA. Your statement will be in the record.

Mr. HOWARD. I have quite lengthy comments here, so I will have to summarize.

My name is John Howard. I am a commissioner from Union County.

Mr. REGULA. Excuse me. When you define "commissioner," back in my area it is three for each county. What is a commissioner's job as you hold it?

Mr. HOWARD. Okay. Our role is both administering programs for the county——

Mr. REGULA. For a county?

Mr. HOWARD. For the county, countywide.

Mr. REGULA. How many are there?

Mr. HOWARD. In Oregon, there are 36 counties.

Mr. REGULA. How many commissioners?

Mr. HOWARD. Three in our county.

Mr. REGULA. That is very similar to Ohio.

Thank you. Go ahead.

Mr. HOWARD. I am grateful for the opportunity to testify before you today about the Interior Columbia Basin ecosystem. The correct pronunciation is ecosystem, not ecosystem. I will correct that—management projects, also known as the Eastside Project and the Upper Columbia River Basin Project. The county that I represent is in northeastern Oregon and includes two forests, Wallowa-Whitman and Umatilla National Forests, and land managed by the Bureau of Land Management that are part of the project. Our county is predominantly a rural area, economically dependent on agriculture and forest products, and is typically the region encompassed by the project.

I have been a commissioner since 1987, and I have lived in the region since 1962. Through the Eastside Ecosystem Coalition of Counties, which was formed in 1994 by the State associations of the counties of Idaho, Washington, Montana and Oregon to represent the interests of local communities and government in the Federal lands planning process, I have been involved with the project since its inception in early January 1994. We have a memorandum of understanding, too, that is submitted in the record.

Mr. REGULA. Without objection, it will be made a part of the record.

Mr. HOWARD. That represents 100 counties giving local input.

I have a longstanding interest in the forest and range management issues and have participated in a number of local, regional and State planning projects currently. I am Chair of the Blue Mountains Natural Resources Institute, which was formed in the late 1980s, of which the forest system I worked on creating. That is dedicated to sharing or searching for solutions to restore healthy ecosystems in the Blue Mountains.

I also serve as Chair of the Grande Ronde Model Watershed Project. This is a project that was promoted by the Northwest Association of Counties, the four watersheds in the four States. Our county and Wallowa County is one of those projects, which is a regional effort to achieve integrated natural resource planning.

In 1994, I served as president of the Association of Counties and am a member of an Association of Public Lands Committee; also a member of the National Association of Counties of Public Lands

Committee as well. My affiliations with those forest-planning projects and natural resource organizations have given me a basis for understanding some of the physical and biological processes now at issue in our Federal forests.

I have a high degree of interest in the Federal ecosystem management projects because of their potential to impact my county and the entire Interior Columbia River Basin in positive and negative ways. Many of us who live in the area are deeply concerned about the widespread forest health problems in our national forests and the economic and social consequences of these problems for our communities.

We are equally concerned about the political and regulatory gridlock that has constrained our local resource managers from implementing necessary management practices to restore our forests back to health and reduce the risks we face from these unhealthy forests, such as catastrophic wildfire, insects and disease. Much of this occurred in the late 1980s.

The Eastside Ecosystem Coalition of Counties has been an active participant in the process because we believe it represents our best opportunity to address the forest health problems. We have also supported the project because we believe that a broad planning effort for the Interior Columbia River Basin is needed to assess potential benefits and impacts of basinwide management, and that local forest managers need to have a framework within which to evaluate and manage the cumulative effects of the projects. These are necessary features to ensure that on-the-ground projects survive both compliance reviews by Federal regulatory agencies and legal challenges by special interest groups.

And, gentlemen, that is the key to this project. This is vital to ensuring that the implementation of management plans is allowed to proceed, which has not been the case during recent years. To accomplish this important task, the Eastside Ecosystem Coalition of Counties developed a comprehensive mission statement, which I will also give them for the record——

Mr. REGULA. Without objection.

Mr. HOWARD [continuing]. And has entered into a memorandum of understanding, and I will highlight the MOU. "The purpose of this memorandum of understanding is to develop a framework for the Associations of Counties and the Project to communicate, coordinate, and jointly identify areas of common concerns or goals to enhance the economic, social and natural resource conditions in the geographic area within the Project," end of quote.

The question before us now is: How well has the project performed in reaching the important goals it is intended to accomplish? The draft environmental impact statements for the Eastern Columbia River Basin and the Upper Columbia River Basin have been circulated for internal review by cooperating governments, including the Eastside Coalition of Counties. I have carefully reviewed the current DEIS documents with the assistance of a team of technical experts, which I would like to share with you my overall impressions of the project.

Mr. REGULA. You have about two minutes.

Mr. HOWARD. Let me go back here. I would like to highlight my other areas here.

I would like to add that there are four areas, and I would like to summarize, and the first one, I would say that we need a comprehensive plan that is both legislative and administrative to end the analysis paralysis and the regulatory gridlock that prevents local managers from addressing the serious forest health problems in our region.

Second, the ecosystem project has the potential to resolve the gridlock and to refocus this scientific foundation on ecological, economic and social consequences. This is critical to achieve plans that the public will support. A great deal of agency time, financial resources and public involvement has gone into bringing these plans to their current form. As they stand now, the plans are becoming more solution-oriented, but the drafts still need further revisions before they are released to the public.

Our county has performed a detailed and comprehensive review of the current DEISs focusing on the problems that I have outlined, and I would like to share that with you, too. It is in my other case.

Mr. REGULA. You can submit it for the record.

Mr. HOWARD. I can submit it. I would like to enter into—for review the DEISs and urge that the subcommittee and their staffs consider these concerns and issues and recommendations. Our review has already been submitted to the projects, and we sincerely hope that the projects are giving our review their fullest consideration.

Lastly, I believe that the ecosystem management projects have the potential to bring sound management practices to the Federal forests and rangelands of the Interior Columbia River Basin. However, before we proceed with printing the draft EISs, let's make sure they adequately address the problems that they have intended to solve.

I would say that from my involvement and the team's involvement, the coalition's involvement, that this is the first time we have ever had this kind of working relationship with the Federal team. In the past we have been involved in the draft EIS, and never before have we entered into a working relationship at the very beginning. We have been involved with them at the very beginning, through the themes, the concepts, the preliminary draft EISs and now where we are at today.

Mr. REGULA. So you are comfortable with that?

Mr. HOWARD. We are comfortable.

The documents, as I said, are getting more solution-driven. You know, there are still some areas, from my viewpoint, need to be addressed before we go into final print. I think that is the key right now, that, you know, my recommendation is not to rush the team as of yet to push to come out with a draft. Get as many of these problems in this process right now resolved before they go to the draft EISs.

Mr. REGULA. Thank you. I hope you will be able to stay for any questions.

[The information follows:]

Good afternoon ladies and gentlemen. My name is John Howard. I am a county commissioner from Union County, Oregon.

I am grateful for the opportunity to testify before you today about the Interior Columbia Basin Ecosystem Management Projects, also known as the Eastside Project and the Upper Columbia River Basin Project. The county that I represent is in Northeastern Oregon, and includes two forests—the Wallowa-Whitman and Umatilla national forests—and land managed by the bureau of land management that are part of the project. It is predominantly a rural area, economically dependent on agriculture and forest products, and is typical of the region encompassed by the project. I have been a Union County Commissioner since 1987 and have lived in the region since 1962.

Through the Eastside Ecosystem Coalition of Counties, which was formed in 1994 by the state associations of counties of Idaho, Washington, Montana, and Oregon to represent the interests of local communities and governments in the federal lands planning process, I have been involved with the project since its inception in January, 1994. I have a long-standing interest in forest and range management issues, and have participated in a number of local, regional and state planning projects. Currently, I am chair of the Blue Mountains Natural Resources Institute, that is dedicated to searching for solutions to restore healthy ecosystems in the Blue Mountains. I also serve as chair of the Grande Ronde Model Watershed Project, which is a regional effort to achieve integrated natural resource planning. In 1994, I served as president of the Association of Oregon Counties, and I am a member of the association's Public Lands Committee. My affiliations with these forest planning projects and natural resource organizations have given me a basis for understanding some of the physical and biological processes now at issue in our federal forests.

I have a high degree of interest in the federal ecosystem management projects because of their potential to impact my county and the entire Interior Columbia River Basin in positive and negative ways. Many of us who live in the area are deeply concerned about widespread forest health problems in our national forests, and the economic and social consequences of these problems for our communities. We are equally concerned about the political and regulatory gridlock that has constrained our local resource managers from implementing necessary management practices to restore our forests back to health and reduce some of the risks we face from these unhealthy forests, such as catastrophic wildfire, insects, and disease.

The Eastside Ecosystem Coalition of Counties has been an active participant in the ecosystem management projects because we believe it represents our best opportunity to address the forest health problems. We have also supported the project because we believe that a broad planning effort for the Interior Columbia River Basin is needed to assess potential benefits and impacts of basin-wide management activities, and that local forest planners need to have a framework within which to evaluate and manage the cumulative effects of their projects. These are necessary features to ensure that on-the-ground projects survive both compliance reviews by federal regulatory agencies and legal challenges by special interest groups. This is vital to ensuring that implementation of management plans is allowed to proceed, which has not been the case during recent years. To accomplish this important task, the Eastside Ecosystem Coalition of Counties developed a comprehensive

mission statement and has entered into a Memorandum Of Understanding (MOU) with the federal project managers, and deputy project manager for the Interior Columbia Basin Ecosystem Management Project. The MOU states:

> "The purpose of this memorandum of understanding is to develop a framework for the Associations of Counties and the project to communicate, coordinate and jointly identify areas of common concerns or goals to enhance the economic, social and natural resource conditions in the geographic area within the project."

The question now before us is: how well has the project performed in reaching the important goals it is intended to accomplish? Draft environmental impact statements for the Eastside Project and the Upper Columbia River Basin Project have been circulated for internal review by cooperating governments, including the Eastside Ecosystem Coalition of Counties. I have carefully reviewed the current DEIS documents, with the assistance of a team of technical experts. I would like to share with you my overall impressions of the project and these draft documents.

The Interior Columbia River Basin Ecosystem Management Projects have been long and difficult. Some have said it could not be done. Others have said it should not be done. I believe that the projects can and should be accomplished as a means to ensure that active management of our forests actually proceeds. Much good work has been done. I have seen a continuous improvement in the quality of the drafts since the versions that were circulated for internal review last October. In particular, I have been heartened to see that much of the value-laden language against humans dependent on the ecosystem has been removed. But I also must stress that the drafts need further revision before they are released to the public. Individuals may come to similar conclusions about objectively measured ecosystem conditions, but the value-based assessments that are woven through the documents, and which cannot be objectively measured, will be repeatedly debated. We do need a broad-scale plan, and there is a sense of urgency about bringing these projects to closure, but we should not go forward until some major problems in the drafts are corrected.

I have three major areas of concern. My first concern is that the projects do not adequately address the economic and social impacts on local communities due to the stated reductions in federal timber availability within each of the proposed action alternatives. Depending on the alternative chosen, these reductions could range from 21% to 64% in the Eastside Project area and 24% to 75% in the Upper Columbia River Basin Project area. The extent of these reductions will clearly result in significant economic impacts, especially at the local level, and will likely cause the project to fail to meet its social and economic goals. The data to assess these impacts has already been collected by the project, and needs to be incorporated into the plans. In 1993, Union and Wallowa counties commissioned a study of the impacts of the administration's proposal to eliminate certain timber sale programs and most specifically the timber sale program on the Wallowa-Whitman National Forest. The study found that commodity harvests from the Wallowa-Whitman National Forest play a significant role in the economy of our local communities, and concluded that elimination of the timber sale program would be detrimental to the economy and social structure of the three counties adjoining this forest.

This kind of detailed, community-level analysis of the economic and social impacts of the alternatives is needed if the projects are to fulfill one of the primary needs stated in the DEISs: "support economic and/or social needs of people, cultures and communities and provide sustainable and predictable levels of products and services." As now written, the draft EISs do not provide this kind of analysis and emphasis, and the project should not go forward without it.

My second concern centers on forest health. Forest health problems in the Interior Columbia Basin have been extensively documented in such studies and reports as *The Eastside Forest Ecosystem Health Assessment* (also known as the Everett Report), and *Forest Health Conditions In Idaho.* In my own Blue Mountains, the story is told in *Forest Health And Timber Harvest In National Forests In The Blue Mountains Of Oregon: A Report Commissioned By Governor John Kitzhaber Of Oregon*, the Association Of Oregon Counties *Legislation Agenda For Forest Health Restoration Report*, and *The Blue Mountains Ecosystem Restoration Strategy*, which was written by four national forest supervisors. I would like to quote briefly from the executive summary of this report to give you a sense of the seriousness and extent of the forest health problem.

"The health of the ecosystem in the Blue Mountains is rapidly deteriorating. Forest scientists estimate that 3.1 million acres, or 51 percent, of the four Blue Mountain National Forests in Northeast Oregon and Southeast Washington are 'out of ecological balance.' Insects, disease, and wildfire kill thousands of acres of trees every year. Dead trees accumulate into wildfire fuel, as much as 4-5 times the natural level in some areas. Dead and dying trees are just the tip of the iceberg. Streamside areas, soils, forage, and fish habitat also need improvement throughout the Blue Mountains. Healthy areas do remain, but many are in a declining trend. Therefore, preventative work is necessary now to reverse this trend."

"The problem also has human dimensions. The loss of trees may ultimately reduce long-term timber supplies. Private lands and resources are being impacted by the spread of insects and wildfires. Municipal watersheds are at risk. Outdoor recreation values are threatened. People living in and around the Blue Mountains are justifiably worried that their communities will lose economic viability."

But you don't have to read a long report to know that our forests are unhealthy. If you live near one of these forests, as I do, you need only walk or drive through them to experience their deterioration.

Restoring forest health is central and fundamental to the concept of ecosystem management. Forest health affects all the values we derive from our national forests: it affects wildlife, habitat, fisheries, recreation, grazing, timber outputs, and aesthetics. If we want ecosystem management to succeed in yielding us a sustainable balance of these values, we must aggressively address forest health problems. While the draft EISs do recognize the existence of the forest health problems, they do not give these problems the prominence they deserve, especially in the impact analysis, nor do they propose the aggressive restoration steps that are called for to solve these problems in a timely manner. Before being published, the drafts should be revised to give more weight to the forest health problem, to propose adequate remedies for this problem, and to discuss the consequences of inaction.

My third area of concern is over the local forest plan amendment process that will take place once the two ecosystem management plans are completed. The plans are designed to provide broad-scale management direction for all federal lands in the Interior Columbia River Basin. As such, the assessment of conditions and recommendations for management direction within the draft plans do not reach a level of detail that can guide implementation of on-the-ground management by supervisors of local national forests. This means that local national forests must perform their own assessments and compose management recommendations at a finer scale of analysis before "on-the-ground" implementation can begin.

Right now, I am not aware of any complete and thorough plan to identify and provide the action steps necessary to accomplish the amendment process at the various scales of the federal administrative units: the national forests, the forest service administrative regions, and the ecosystem management project. Local managers are doing minimal and conservative work while waiting for guidance and support before moving ahead with active management strategies. There needs to be coordination among these entities if we are to have successful plans. The timely implementation of on-the-ground management activities necessary to restore forest health and provide long term economic and social stability to our communities depends on it.

Let me quickly sum up my views of the project:

1) **We need a comprehensive plan (legislative and administrative) to end the analysis paralysis and regulatory gridlock that prevents local managers from addressing the serious forest health problems in our region.**

    2) **2) The ecosystem management project has the potential to resolve the gridlock and to refocus the scientific foundation on ecological, economic and social consequences. This is critical to achieving plans that the public will support. A great deal of agency time, financial resources, and public involvement has gone into bringing the plans to their current form. As they now stand, the plans are becoming more solution oriented, but the drafts need further revision before they are released to the public.**

3) **Our county has performed a detailed and comprehensive review of the current DEISs focusing on the problems I have outlined here today. I would like to enter our review of the DEISs in the public record and urge the members of this subcommittee and their staffs to consider these concerns, issues and recommendations. Our review has already been submitted to the projects and we sincerely hope that the projects are giving our review their fullest consideration.**

4) **Lastly, I believe the ecosystem management projects have the potential to bring sound management practices to the federal forests and rangelands of the Interior Columbia River Basin. However, before we proceed with the printing of the draft EISs, let's make sure they adequately address the problems they are intended to solve.**

MISSION STATEMENT OF THE EASTSIDE ECOSYSTEM COALITION OF COUNTIES

The Association of Oregon Counties, Washington State Association of Counties, Idaho Association of Counties, and Montana Association of Counties have jointly formed the Eastside Ecosystem Coalition of Counties (EECC) to represent counties directly affected by the federal Eastside Ecosystem Management Project. Being fully engaged in the Project, the EECC will pursue the following mission:

1. Ensure that affected counties fully participate in the Project by facilitating communication between the federal government and affected counties.

2. Take the lead at strategic points in the process by presenting interests of affected counties directly to Project officials.

3. Seek as outcomes of the Project policies that permit and encourage:

    a. Watershed, habitat, forest, and rangeland management and protection, which will sustain healthy and productive ecosystems over the long term and will recognize the integral role humans play on the landscape;

    b. Site-specific management;

    c. Flexibility based on the rapidly increasing knowledge of natural processes;

    d. Measures to significantly reduce the potential for catastrophic fires;

    e. A stable and reasonable supply of forest and public land products;

    f. Protection, through employment opportunities and other means, for counties and communities dependenton federal land resources; and

    g. Sensitivity to private property rights.

4. Seek to protect the vitality of affected counties and communities, through administrative and congressional actions, for the period before adoption of new federal plans developed by the Projec

5. Seek to protect the vitality of affected counties and communities for the period after adoption o new federal plans developed by the Project, by pursuing administrative and congressiona actions that mitigate severe impacts of the new plans.

Memorandum of Understanding

between the Association of Oregon Counties, the Washington State Association of Counties, the Idaho Association of Counties and the Montana Association of Counties (hereinafter the "Associations of Counties") represented by county elected officials [1] acting on behalf of the Associations of Counties as the Eastside Ecosystem Coalition of Counties

and the

Interior Columbia Basin Ecosystem Management Project (ICBEMP) for the USDA Forest Service and the USDI Bureau of Land Management (hereinafter the "Project")

I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to develop a framework for the Associations of Counties and the Project to communicate, coordinate and jointly identify areas of common concerns or goals to enhance the economic, social and natural resource conditions in the geographic area within the Project. It is the intention of the Associations of Counties and the Project that this agreement will facilitate better communication and understanding of the preparation of information for the *Scientific Assessment for Ecosystem Management in the Interior Columbia River Basin*, the *Eastside Environmental Impact Statement*, and the *Upper Columbia River Basin Environmental Impact Statement* and decisions resulting therefrom. It is also the intent that this agreement will provide one mechanism for continuing involvement of the parties in activities of common concern, without preventing the ability of individual counties and elected officials from interaction with the Project.

This MOU recognizes the already existing relationships and arrangements between individual counties and the Bureau of Land Management and/or the Forest Service, and in no way is intended to affect those relationships and arrangements.

II. Background

The geographic area of the "Interior Columbia River Basin" covered by this MOU are the lands in the continental United States tributary to the Columbia River east of the crest of the Cascade Mountain Range, and the portions of the Great Basin and Klamath Basin in the state of Oregon.

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[1] The local elected officials who represent their respective Associations of Counties through the Eastside Coalition of Counties at the time of the signing of this document include: Commissioner Joan Frey, Klickitat County Washington, Commissioner Ed Thiele, Okanogan County Washington, Commissioner LeRoy Allison, Grant County Washington, Commissioner Noel Williams, Lincoln County Montana, Commissioner Michael Kennedy, Missoula County Montana, Commissioner Allen Horsfall, Ravalli County Montana, Commissioner George Enneking, Idaho County Idaho, Commissioner Jan Donley, Boise County Idaho, Commissioner Merle Dinning, Boundary County Idaho, Commissioner John Adams, Cassia County Idaho, Judge Arleigh Isley, Wallowa County Oregon, Judge Dale While, Harney County Oregon, Commissioner John Howard, Union County Oregon, and their successors during the term of this agreement.

The interior Columbia River Basin east of the crest of the Cascade Mountain Range and the portions of the Great Basin and Klamath Basin in the state of Oregon are home to more than 2.6 million people who reside in or near small rural communities as well as large metropolitan areas. This land, homeland to numerous American Indian Tribes, experienced the European settlements from the mid 1800s through the 20th century. Federal lands in the area have provided the historic basis for economic reliance on ranching, mining and forestry activities that continue at significant levels to the present day. As the region's population has increased and diversified, the economy has changed to include recreation, tourism and service sectors.

Local governance in the Project area includes over 100 counties. County Commissioners and County Judges serve as the governing body for each County and are charged with providing the services and leadership necessary to maintain the health and safety of the residents. In a larger sense, the County Commissioners or Judges are charged to manage the changes and demands of a growing and evolving society.

In a very general sense, counties and federal agencies are perceived to have defined knowledge and responsibilities. County elected officials know the people, the challenges of dealing with change in communities, and management of natural resources in the area. The federal Project agencies, authorized to manage the federal lands to provide goods and services consistent with the overall goal of maintaining healthy, sustainable ecosystems over the long term, are local employees who are a part of the local community. Often the defined responsibilities and knowledge overlap however, and more can be achieved by recognizing and sharing information and expertise among county and federal governments.

The Project and associated Environmental Impact Statements were initiated to develop a scientifically sound and ecosystem based strategy for forest and rangelands administered by the U.S. Forest Service and the Bureau of Land Management in the interior Columbia River Basin and portions of the Klamath and Great Basins. The Associations of Counties for the states of Oregon, Washington, Idaho and Montana have formed the Eastside Ecosystem Coalititon of Counties (EECC) to organize communication among counties directly affected by the Project. The EECC seeks to ensure that affected counties fully participate in the Project by facilitating communication between the federal government and affected counties, and to periodically present information of affected counties directly to Project officials.

III. Authority

The Associations of Counties and the Project recognize that their authorities and responsibilities are distinctly different. Each is guided by the specific laws and regulations which pertain to their respective level of government. Both parties, however, recognize the need to better coordinate with each other and share a broader vision of how their individual actions can contribute to a greater good for the people of the Interior Columbia River Basin.

The Project was initiated under the following authorities including which contain provisions for coordination with other governments:

> National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321[note]), (40 CFR 1500-1508)
>
> National Forest Management Act (NFMA) of 1976 (16 U.S.C. 1600 [note]), (36 CFR 219).
>
> Federal Lands Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1700), (43 CFR 1712(c)(9)).
>
> Federal Advisory Committee Act (FACA) of 1972 (5 U.S.C. App. 2) (41 CFR 101-6). And amended by P.L. 104-4, Section 204 (Senate Bill 1).
>
> The Organic Administration Act (Organic Act) of June 4, 1897 (16 U.S.C. 473 et seq.) that in establishing the national forests recognized the continuing jurisdiction of state and local law enforcement on these lands;
>
> The Shared Receipts Act (Twenty-Five Percent Fund) of May 23, 1908 (16 U.S.C. 500 et seq.) which established the sharing of receipts from revenues collected by the Forest Service for activities on Forest Service land;
>
> Payments in Lieu of Taxes Act (PILT) of 1976 (31 U.S.C. 6901 et seq.).

Both parties also recognize that programs of the federal land management agencies are inseparably linked to county units of government. County governments posses special expertise on many issues affecting the quality of the human environment addressed in the Project's environmental impact statements.

IV. Responsibilities and Procedures

A. Mutual Responsibilities

Based upon the provisions of §204 for P.L. 104-4, both parties agree to the following implementation:

Meetings of the Commissioners as elected officials in attendance of the EECC meetings where Project representatives are invited to participate will constitute one means of communications in furtherance of this agreement. The parties agree to document compliance with FACA and other applicable laws and statutes.

Additional meetings of the Project representatives with county elected officials who are unable to participate through meetings of the EECC will also occur by mutual agreement of the Project and said county elected officials, recognizing the limited federal personnel available from the Project and distances from the Project offices. The parties agree to document compliance with FACA and other applicable laws and statutes.

Meetings between Project representatives and "designated employees"of elected county officials "with authority to act on their behalf" may occur pursuant to §204(b) and documentation of designation of employees and issuance of guidance pursuant to §204(c).

The topics at meetings of County elected officials and the federal Project representatives for the purposes of exchanging views, information, or advice relating to the Project may include, but are not be limited to the following:

> Discussion of the stated goals of the Project and the counties and the potential for reconciling differences in those goals;
>
> The identification of opportunities to further expand and strengthen cooperative planning and implementation efforts where there is mutual benefit;
>
> Exchanging information related to federal land management issues;
>
> The consideration of community values, opinions, and perceptions of the residents of the affected counties in the Project area as part of overall public participation;
>
> The consideration of the values, opinions, and perceptions of other publics who use the National Forests and BLM lands and resources;
>
> Identifying ways to meet common objectives within statutory authorities;
>
> Criteria that will be utilized for decisions by the Project;
>
> How decisions resulting from the Project may be implemented;
>
> How to carry out an "early warning" communication program between the parties to this agreement during periods between meetings called by the.

B. County Responsibilities

At the request of the Project, and to the extent that available resources, personnel, authorities, and funds allow, prepare information and review documents pertaining to areas in which county governments have expertise.

Provide a list of primary points of contact for each federal Project office and for Project representatives stratified at appropriate staff level for communication between meetings of county elected officials and Project representatives.

Designate one county official in each county in the Project area as responsible for receipt of documents developed by the Project and distribution of documents to appropriate county officials and agencies. Communicate to the Project offices the name of that county official.

C. Federal Responsibilities

Determine information needs of the Project for which counties may have expertise and request information from counties. Assure that information affecting and provided by counties are routinely transmitted to appropriate project staff during the development of the federal documents.

Keep the Counties aware and informed of activities concerning the Project. This will be accomplished primarily through contact with the EECC. A secondary set of contacts will be directly with other counties that have been determined to be available and are interested in receiving information.

Contact and involve in the meetings the appropriate local offices of the BLM and/or Forest Service when meetings of the Project representatives and county elected officials are to be held in the local area.

Give one person at the Walla Walla & Boise federal project offices responsibility for ensuring that the County designated officials are properly notified and informed of events and availability of documents for county review at the appropriate time.

V. Limitations and Mutual Understandings

This agreement recognizes there are existing agreements or other arrangements between individual county governments and the Forest Service and BLM within the project area. It is mutually understood that this agreement has no effect on these other existing agreements between county governments and the Forest Service and BLM which have heretofore been adopted.

It is mutually understood that this instrument in no way restricts the parties from participating in similar activities with other public or private agencies, organizations, and individuals.

This instrument is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this agreement will be handled in accordance with applicable laws, regulations, and proceedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to either party of any contract or other agreement. Any contract or agreement for training or other service must fully comply with all applicable requirements for competition.

Nothing in this Memorandum of Understanding shall obligate the Associations of Counties or the Project to expend appropriations or to enter into any contract or other obligations.

Any meetings between the Associations of Counties and Project are for the purpose of obtaining the views, information or advice of county elected officials, but not for the purpose of utilizing the group to obtain consensus advice or recommendations.

Pursuant to Section 22, Title 41, United States Code, no member of or Delegate to Congress shall be admitted to any share or part of this instrument, or any benefits that may arise therefrom.

No part of the agreement modifies existing authorities under which the Project or Associations of Counties currently operate.

There shall be no discrimination against any person because or race, creed, color, religion, national origin, handicap, or gender.

The parties agree to review and assess the effectiveness of the MOU annually.

Modifications within the scope of this instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by all parties, prior to any changes being performed.

Any party(s) upon mutual agreement, in writing, may terminate the instrument in whole, or in part, any time before the date of expiration.

This instrument is executed as of the last date shown below and expires no later than December 31, 1996, at which time it is subject to review, renewal, or expiration.

JEFF BLACKWOOD
Project Manager
Interior Columbia Basin Ecosystem
Management Project
U.S. Forest Service

STEPHEN P. MEALEY
Project Manager
Interior Columbia Basin Ecosystem
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JANE JELINSKI
Gallatin County Commissioner
President, Montana Association of Counties

JAY WEBER
Douglas County Commissioner
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UNION COUNTY
Board of Commissioners

JOHN J. HOWARD, Chairman
STEVE McCLURE, Commissioner
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1106 "K" AVENUE LA GRANDE OREGON 97850 PHONE (541) 963-1001 FAX No 963-1079

April 19, 1996

Jeff Blackwood
Eastside Ecosystem Management Project
112 East Poplar
Walla Walla, Washington 99362

Steve Mealey
UCRB Ecosystem Management Project
304 North 8th Street, Room 250
Boise, Idaho 83702

Dear Jeff and Steve:

Attached are our overview and detailed comments on the April 4, 1996 versions of Additional Materials for Chapter 3 and Chapter 4, Environmental Consequences, for the two DEIS's. These are being provided as separate attachments for easier review. As in our other recent submittals, we have organized the comments according to the headings and page numbers found in the documents. We hope that you will find this organization helpful during your review.

We appreciate your continued inclusion of county governments in the internal review of the project materials. We certainly hope that you will give your fullest consideration to the incorporation of our comments and recommendations.

I look forward to further discussions with you about this important material.

Sincerely,

John

John Howard
Union County Commissioner

Attachments:

1) Additional Materials for Chapter 3, Overview & Detailed Comments
2) Chapter 4 Environmental Consequences, Overview & Detailed Comments

Additional Materials for Chapter 3
Overview Comments

Comparison of Effects of Alternatives

- This entire discussion should occur in Chapter 4 following the discussions of impacts for each resource area. Chapter 3 should only describe the alternatives and the associated desired range of future conditions. It should not summarize potential impacts.

- For a decision maker, the "Comparison of the Effects of the Alternatives" is perhaps the most lucid and useful part of the document. However, it is difficult to tell where in the document this information will show up; it should be in Chapter 4.

Effects on Aquatic Ecosystems and Species Viability and Effects on Riparian Ecosystems

- These sections state that Alternatives 6 and 7 will provide the greatest benefit to aquatic and riparian ecosystems, yet under Effects on Interactions of Disturbance Processes the text states the reserves of Alternative 7 would lack management activities and would diverge from natural processes because they would tend to have large, high-severity fires. How can the project conclude on one hand that Alternative 7 will result in large unnatural fires, and on the other hand conclude that it is the best alternative for aquatic and riparian resources? When large watershed areas burn, riparian areas burn. When soils are damaged and erode following unnaturally intense fire, sediment reaches streams and aquatic resources suffer. The project has not faced the realities of these circumstances and therefore has not correctly evaluated the relative merits and effects of the alternatives considered.

- Discussions in these sections should also distinguish between the UCRB and Eastside project areas, briefly describing differences among alternatives where they vary by project area. Review of the more detailed impact analysis in Chapter 4 shows that, in fact, there are notable differences in the expected outcome of some of the alternatives between project areas. These outcomes should be quantified so the reader understands the relative similarity among many of the alternatives.

Effects on Viability of Threatened and Endangered Aquatic and Terrestrial Species

- The project seems to reach an inconsistent conclusion when it states that the largest improvement in viability for narrow endemic threatened and endangered fishes is associated with Alternatives 6 and 7. The largest habitat-related effects on endemic species within the last several years have been associated with severe and unnaturally intense wildfires. The Tanner Gulch fire on the Wallowa Whitman National Forest had severe effects on chinook salmon, and the Boise River Wildfire Complex had severe sediment, stream temperature, and other effects on hundreds of miles of bull trout aquatic habitat. Riparian and aquatic areas may be at a net overall increased risk compared to those alternatives that alleviate hazards through active management and restoration approaches. This needs to be addressed in the DEISs.

Effects on Long Term Terrestrial Species Viability

- The DEISs incorrectly state that Alternative 5 is predicted to have continued declines for species viability from current conditions. How can this be? In all areas other than timber management emphasis areas, Alternative 5 calls for riparian area management identical to that of Alternatives 4 and 6, which are expected to restore species viability. Even within timber management emphasis areas, Alternative 5 calls for management of riparian functions–shade, large woody debris, nutrient filtering, and sediment, among others–at levels in excess of those called for within existing state regulations, and commonly in excess of current FS/BLM procedures within current Forest Plans. Furthermore, Alternative 5–like Alternatives 4 and 6–should reduce risk of severe aquatic damage from wildfire. Your evaluation of Alternative 5 should be reconsidered.

Additional Materials for Chapter 3
Detailed Comments

Guidelines

Terrestrial Ecosystems

General Overall Comments

Many of the terrestrial ecosystem guidelines are stylistically weak and hard to understand. Guidelines (as well as objectives and standards) should be simple, declarative statements that convey a distinctive purpose.

The lack of consistent objectives for the alternatives makes it difficult, if not impossible, to follow the guidelines since so many objectives are alternative specific. For example, should guidelines for Objective 5 be applied to all alternatives or only to some of them?

Guidelines for Objective TE-01

Page 2. This objective states "Restore fire as a natural disturbance process by developing and implementing prescribed fire plans on a landscape scale...." Why did the EIS team relegate risk evaluation to the status of an *optional* guideline? Risk of catastrophic wildfire is a critical consideration for ICRB forests. It can involve the loss of habitat, resource values, and human life and property. Directly linked with the issues of forest health, it is a major driver behind development of these EISs. Restoring fire as a natural disturbance process will initially *require* evaluation of risks associated with action versus inaction. Because risk evaluation will precede implementation of any fire restoration plans, the EIS team should elevate guidelines currently addressing risk to the level of standards for the region.

An important component of ecosystem management is the integration of different disciplines into a unified, coordinated management plan for the landscape. Forest plans should seek to foster communication and cooperation among different disciplines. As such, it is necessary to insert guidelines that link actions among different disciplines. For example, managers should integrate prescribed fire plans with plans addressing air quality and related issues.

Page 2, TE-G4. This guideline, which states "Consider whether prescribed natural fire...uneconomical to treat," illustrates the problem mentioned in the general overall comment above. Because of this stylistic weakness, one cannot determine if this is a guideline for management or a way to simply validate a thought process.. As written, one only need think about this concept rather than implement it as a management option; as a guideline, it is already optional and subject to "consideration" prior to implementation. Removing the "consider whether" phrases will greatly clarify the thinking of the manager. For example, the EIS team could more effectively state this guideline, "Use prescribed natural fire to manage areas of insect-and/or....to treat." This same comment applies to any other guideline with such confusing language.

Page 2, TE-G6. This is a very confusing guideline. One cannot separate whether the guideline suggests expanding prescribed fire plans, prescribing natural fire acres, restoring forestland, measuring improvement of resilience of forests, or all four. The EIS team should rewrite this guideline.

Guidelines for Objective TE-02

Page 3. This objective states "Rehabilitate and/or reforest all burned and/or harvested areas with ecologically appropriate species and strategies tailored to the fire regime inherent to the site, wherever it is determined that the density, structure, and composition of the vegetation will not resemble desired conditions within ten years." This objective requires revision to enhance clarity. The EIS team should rewrite the caveat, "...within ten years." It should clearly specify whether this means that rehabilitation of the site, determination of the parameters of success, or the vegetative community itself will develop within ten years. As written, the objective suggests that the plant community must achieve desired conditions within ten years or the manager would need to implement the objective. This has obvious problems should, for example, a *desired* old forest condition be *currently* in a stem exclusion structure.

In addition, the EIS team should place an emphasis on evaluation of structural and compositional *trajectories* toward DRFCs rather than achieving specific structures or compositions. This approach is more consistent with overall concepts of dynamic landscapes presented within this document. The evaluation should focus attention on answering the question, "Are we moving in the right direction?" rather than "Are we there yet?" This will provide managers with sufficient flexibility to address the multitude of resource objectives that they will be facing in the future.

Finally, it appears that the EIS team should copy or move some of the native species' guidelines supporting Objective TE-01 to Objective TE-O2.

Page 3, TE-G21. This is a potentially valuable guideline which states, in part, "...and disturbance regimes. It may be necessary to change existing standards for big game cover." Yet, will the guideline be useful if managers must change existing standards preceding its implementation? If existing wildlife standards are inconsistent with ecologically sound forest practices such as structural conversions, then should not the EIS team change these standards with this EIS? This wording seems to be a rather cavalier way of acknowledging the need for additional action with this document.

Page 3, TE-G22. The EIS team should divide this guideline into two or even three guidelines. This guideline addresses three potentially important components of ecosystem management. These include facilitating development of desired structural compositions ("To accelerate development..."), defining success for silvicultural actions that attempt to do so ("The success...may...be determined..."), and setting monitoring protocols ("Use Ecosystem Analysis...").

Guidelines for Objective TE-03

One cannot compare the alternatives' capacity to meet this objective, since objective TE-03 is different for different alternatives. There is a failure of logic here.

Page 3, TE-G15, TE-G16, and TE-G20. These guidelines describe potentially powerful silvicultural tools for controlling wildfire effects on forests in extremely general terms. The guidelines are vague regarding the conditions for application, the extent of the application, and the intended or desired results. Provide additional guidance to facilitate the use and proper implementation of these guidelines. For example, fine fuel loading, ladder fuel condition, and stem/crown densities for achieving reduced wildfire hazard can be specified if a specific information source is unavailable

TE-G22, G23, and G24, pg. 3. These guidelines appropriately call for accelerated restoration of natural stand structures through application of thinning, harvesting, and/or prescribed fire. These practices may also be necessary within many areas classified as RMAs. Alternatives that effectively preclude application of these management actions where needed within riparian areas may actually result in catastrophic riparian and aquatic damage. Resolve this conflict in the guidelines.

Page 5, TE-G42. It is understood that the existing ICBEMP data base for road density is based on a 3 percent sample, and that road density information is unreliable at the 4th HUC level or finer scales of implementation. Restoration priorities should not be set with incomplete or potentially misleading data.

Page 5, TE-G43. This guideline, which addresses consolidation of treatments and future access for management, is so speculative and general that it appears to be unusable. It is inconceivable that future management would have fewer access requirements than current or past management. Also, any consolidation of multiple management entries will have direct tradeoffs in the quality of the ecosystem, the ecological integrity achieved, optimization of multiple benefits, and the predictability of future conditions.

Page 5, TE-G49. This guideline is too specific and too general. It is too specific in the canopy closure and site capability requirements, and too general in the direction for animal movement and habitat linkages. This guideline also calls for minimization of roads on ridgetops. This seems to contradict practices for minimization of erosion and stream sedimentation, and in many situations will conflict with minimization of road miles.

TE-G72, pg. 7. This guideline calls for management of vegetation compatible with spatial and temporal disturbance processes that encourage attainment of RMOs and benefit native aquatic species. This guideline should be supported. Furthermore, it is suggested that where riparian vegetation has become unnaturally dense and suffers forest health problems not unlike those of the surrounding terrestrial landscape, this guideline and guidelines TE-G22, G23, and G24 may be necessary.

Aquatic Ecosystems

AQ-G6 and AQ-G7, pg. 20. These are good guidelines and should be supported.

AQ-G8, pg. 20. Completing vegetation treatments within short periods of time (less than 5 years) may cause a conflict with existing Forest Standards and Guidelines for modeled sediment production, coarse-screens based on harvested area, or other types of limitations, both existing and as currently shown as RMOs within some of the alternatives, especially Alternative 7. This could also cause conflict with instream RMOs. Resolve this conflict in the guideline.

AQ-G23, AQ-G24, and AQ-G25, pg. 21 and 22. These are good guidelines and should be supported.

AQ-G27, pg. 22. Using watershed disturbance levels as early indicators of potential watershed cumulative effects does not establish causal mechanisms for aquatic and riparian conditions. These "early indicators" should also not be considered as thresholds for management decisions. They should only be used as a means of alerting managers and specialists of the need to initiate analysis of watershed and stream conditions. The diagnosis of causal mechanisms as suggested within AQ-G32 should not be supported.

AQ-G39, pg. 23. This guideline can easily be reworded so that it is more aligned with state water quality and TMDL management programs as follows: "Cooperate with state water quality agencies and respective programs and policies to align priorities for completing problem assessment **with state procedures for developing** Total Maximum Daily Loads ..." (Bold indicates added language). Adjust the last sentence of the guideline to read "Based on the Ecosystem Analysis, work with the appropriate state/local water quality management agency to develop a Total Maximum Daily Load and Watershed Management Plan which restores watershed function and process to meet the **state's** water quality standards and **TMDL requirements."**

AQ-G46, pg. 23. This guideline seems to discourage activities designed to prevent large natural disturbances within Category 1 watersheds. However, caution is urged here, as such disturbances may be incompatible with restoration of aquatic species in many circumstances. Suggested rewording of this guideline is: "Consider if activities designed to prevent large natural disturbances are necessary for maintenance or restoration of ecological processes, including riparian and aquatic area processes."

AQ-G54, pg. 24. See comments on AQ-G27 regarding the appropriate (and inappropriate) use of such screens.

AQ-G58 and AQ-G70, pg. 24 and 25. These guidelines indicate that use of existing transportation networks are always preferred. However, development of carefully located and constructed roads may impact streams less through time than would use of "existing" roads.

AQ-G59, G60, G61 and AQ-G71, G72 and G73, pg. 24. These are good guidelines and should be supported.

AQ-G65, pg. 25. The general intent of this and similar guidelines is supported. However, the implication is that large-scale forest health treatments are considered "experimental." The implication of this guideline, and guideline AQ-G74, is that **only** Category 3 watersheds are suitable for large-scale forest health treatments. This may prove to be contradictory to other project needs, standards and guidelines.

Human Uses and Values

HU-G1 through HU-G11. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G14. This guideline proposes monitoring, yet no concrete programs at a regional level have been proposed. Without some understanding of overall direction of social and economic programs, monitoring seems somewhat gratuitous.

HU-G15. This guideline does not appear to say anything. It seems to apply to future studies rather than taking actions.

HU-G16, HU-G17, and HU-G18. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-20. Why does this guideline only apply to Alternative 5? Each of the alternatives will be a new management strategy.

HU-G22. Why are new studies being proposed when the objectives and standards do not include new programs?

HU-G23. This guideline deals with local area topics and is appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G24 and HU-G25. Why do these guidelines only apply to Alternative 6?

HU-G26. This statement doesn't say anything. It is probably not a guideline.

HU-G27 and HU-G28. Why do these guidelines only apply to Alternative 6?

HU-G29. It is interesting that the prior funding for FEMAT mitigation programs is discussed here. It would be instructive to identify changes in program funding over time and note how funding levels have been significantly reduced.

HU-G30, HU-31, and HU-32. Not relevant; guideline HU-O7 dealt with wildfire in the wildland-urban interface.

HU-G33 and HU-G34. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G35. Not relevant; HU-O7 dealt with wildfire in the wildland-urban interface.

HU-G36, HU-G37, HU-G38, and HU-G40. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G43. ERU's are not a particularly useful unit for conducting public participation programs for any of the alternatives, since ERU's were not the basis for developing alternatives and few public groups or individuals have any spatial cognition of ERU's.

HU-G45. This guideline deals with local area topics and is appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G47. There is no basis to advocate road closures for recreation enhancement. Since a high proportion of recreation on Forest Service and BLM land requires road access, guidelines should emphasize siting new roads to increase recreation opportunities. A set of objectives, standards, and guidelines that addresses increased road mileage and increased development to meet future recreation demand is glaringly absent from Chapter 3.

HU-G49. The only recreation objective noted called for increasing primitive and semi-primitive opportunities. The economic assessment was deficient in its discussion of recreation demand. As it stands, no information on how to plan for future recreation needs has been developed. Since the project has failed to provide that information, and there is no foundation for decision making, it is difficult to see how any recreation-related decisions can be made.

HU-G51. What is a benefits-based approach to recreation and tourism planning? This is not a topic addressed in either Chapter 2 or Chapter 3 and is a term that will be confusing to most readers.

HU-G52. This guideline should be modified to note that mitigation may be required for some types of development, since not all recreation development desired by the public can be low impact.

HU-G53. A need for this type of facility has not been identified in Chapters 1, 2, or 3 in the DEIS nor has it been discussed in the economic assessment. Rather than pulling ideas out of the air that have no analytical foundation, this guideline should be deleted.

HU-G56. Rather than arbitrarily promoting use of abandoned transportation corridors for recreation purposes, there should be some guidelines that address regional recreation planning so that there is some agreement among agencies and various interest groups about types of recreation need. Abandoned transportation corridors may have greater value as some type of utility corridor in the future.

HU-G60. It should be noted that reserves are very likely to increase the risk and extent of catastrophic events such as major wildfires. How will this increased risk be addressed by the Forest Service and BLM?

HU-G61. Why is Alternative 7 excluded from a guideline aimed at making historical and cultural resources available to the public? These types of exclusions should be noted in the impact analysis in Chapter 4.

HU-G62. This guideline proposes to capitalize on ecotourism without any indication of the presence of a viable market for it. Without more information being presented, this guideline should be dropped.

HU-G64. Why is a permit process being proposed? Are there other procedures that would produce similar results? No analysis has been presented that would warrant such a specific guideline.

HU-G65, HU-G66, HU-G67, HU-G71, and HU-G72. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G74. How does this differ from guideline HU-G65?

HU-G76. Natural systems are only one area where education is important. Forest dynamics, silvicultural practices, active management, and adaptive management are other topics appropriate for education programs.

HU-G78. Without some definition and understanding of the appropriateness of corridors, this guideline is confusing. Are you trying to confine recreationalists or disperse them?

HU-G79. Include economic conflicts in this guideline along with social and ecological conflicts.

HU-G80, HU-G81, HU-G83. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G84. This guideline deals with local area topics and is appropriate at the forest plan level, not at the broad scale being dealt with in this project. ERU's are not a recognizable unit to most of the public and are not appropriate as administrative units.

HU-G88. This guideline is not relevant to objective HU-O13.

HU-G89 and HU-G94. These guidelines deal with local area topics and are appropriate at the forest plan level, not at the broad scale being dealt with in this project.

HU-G95. Natural systems are only one area where education is important. Forest dynamics, silvicultural practices, active management, and adaptive management are other topics appropriate for education programs.

HU-G100. Why shouldn't this guideline apply to Alternative 7 also? In addition to excluding many families, low income individuals, and people with physical limitations from reserves, as Alternative 7 does, the project is proposing to provide free access to an elite, limited group of users. If revenues are desired, then reserve users should pay the same total amount for access that users would pay under other alternatives.

HU-G101. This is an objectionable guideline. It would preclude numerous businesses such as outfitters, rafting companies, and guides. The commercial aspect of an activity has nothing to do with its impact on an area. Either delete this guideline or apply it to all alternatives.

HU-G103. Mapping scenic integrity at a broad regional level is ridiculous and the notion should be scrapped. Note that none of the examples of areas where improvement may be needed are at a regional scale. They all involve site-specific situations.

HU-G104. This guideline deals with local area topics and is appropriate at the forest plan level; not at the broad scale being dealt with in this project.

HU-G106. This guideline is incorrect in stating that scenic integrity would be enhanced in reserve areas. In addition to having higher risk of catastrophic fire that could destroy scenic integrity across broad areas, exotic weed proliferation and spread of insects and disease will negatively impact scenic integrity.

HU-G110. Why are there guidelines for monitoring recreation strategies when no alternative recreation strategies are presented in the DEIS? Monitoring is make-work when there are no programs to monitor. The DEIS is deficient in this area.

HU-G115. This guideline deals with local area topics and is appropriate at the forest plan level, not at the broad scale being dealt with in this project.

Ecosystem Management

EM-G25, G28, G33, and G34, pg. 41. These are good guidelines that provide for consideration and management of road systems relative to the need for roads and the effects on ecosystems and riparian areas.

Comparison of Effects of Alternatives

This discussion should be placed in Chapter 4 following the discussions of impact assessment for each of the resource areas. It is not appropriate to include even such a summary discussion of impacts in Chapter 3 where only the alternatives and the associated desired range of future conditions are being described.

For a decision maker, the "Comparison of the Effects of the Alternatives" is perhaps the most lucid and useful part of the document. It's difficult to tell where in the document this information will show up; it needs to be in Chapter 4. In addition to providing this information, the EIS team should consider developing a summary graphic (for example, a bar chart) that clearly shows the comparisons presented in this section. The EIS team might consider scoring the alternatives (Low = 1, Medium = 3, High = 5 with intermediate scores for Low to Medium, Medium to High, etc.) and creating bar charts based on the scores. This could visually portray the results of the analysis in a very user-friendly format.

Effects on Aquatic Ecosystems and Species Viability.

As noted above, this summary discussion should appear in Chapter 4. Also, this discussion should distinguish between the UCRB and ECRB project areas, briefly describing differences among alternatives where they vary by project area. Where possible, phrases such as "greatest benefit" for Alternatives 6 and 7 and "least protection" for Alternatives 1 and 5 should be quantified so the reader gains a sense of the relative similarity of predicted outcomes for most alternatives.

Effects on Aquatic Ecosystems and Species Viability
Effects on Riparian Ecosystems
Effects on Interactions of Disturbance Processes.

These sections begin by stating that Alternatives 6 and 7 are expected to provide the greatest benefit to aquatic and riparian ecosystems, yet under Effects on Interactions of Disturbance Processes, it is concluded that areas within the reserves of Alternative 7 would lack management activities and would diverge from natural processes because they would tend to have large, high-severity fires. There is ample evidence to support this conclusion. Furthermore, because Alternative 7 would seldom allow management of riparian area vegetation in areas outside of the reserves even in the face of severe forest health problems and risk of unnatural fire, hazards of damage to riparian and aquatic resources are extreme under Alternative 7 in far too many circumstances. How can the project conclude on one hand that Alternative 7 will result in large unnatural fires, and on the other hand conclude that it is the best alternative for aquatic and riparian resources? When large watershed areas burn, riparian areas burn. When soils are damaged and erode following unnaturally intense fire, sediment reaches streams and aquatic resources suffer. The project has not faced the realities of these circumstances and therefore has not correctly evaluated the relative merits and effects of the alternatives considered.

Effects on Viability of Threatened and Endangered Aquatic and Terrestrial Species.

The project seems to reach an inconsistent conclusion when it states that the largest improvement in viability for narrow endemic threatened and endangered fishes is associated with Alternatives 6 and 7. The conclusion should be similar to that described for aquatic ecosystems. The record supports this view; it is suggested that the single largest habitat-related effects upon endemic species within the last several years have been associated with severe and unnaturally intense wildfires. The Tanner Gulch fire on the Wallowa Whitman National Forest had severe effects on chinook salmon, and the Boise River Wildfire Complex had severe sediment, stream temperature, and other effects on hundreds of miles of bull trout aquatic habitat. It is hard to understand how management practices described for watersheds and riparian areas for any of the action alternatives considered where these alternatives would reduce risk of catastrophic fire could 1) measurably, adversely affect riparian and aquatic resources, and 2) not result in a net benefit to riparian and aquatic resource health. To the degree that passive management approaches within any alternative fail to restore natural vegetation structure, pattern, and health, including within riparian areas, riparian and aquatic areas may be at a net overall increased risk compared to alternatives that alleviate these hazards through active management and restoration approaches.

Effects on Long Term Terrestrial Species Viability

In paragraph two of this section, it is stated that Alternative 5 is predicted to cause continued declines in species viability from current conditions. How can this be? In all areas other than timber management emphasis areas, Alternative 5 calls for riparian area management identical to that of Alternatives 4 and 6, which are expected to restore species viability. Even within timber management emphasis areas, Alternative 5 calls for management of riparian functions - shade, large woody debris, nutrient filtering, and sediment, among others - at levels in excess of those called for within existing state regulations, and commonly in excess of current FS/BLM procedures within current Forest Plans. Furthermore, Alternative 5 - like Alternatives 4 and 6 - should reduce risk of severe aquatic damage from wildfire. Through what causal mechanism does Alternative 5 result in "declines of species viability?"

Chapter 4 Environmental Consequences
Overview Comments

Introduction

- According to NEPA, the analysis contained in Chapter 4 should be related to a baseline or benchmark. Typically, the No-action Alternative serves this purpose. No consistent baseline was found in Chapter 4. Because the analysis is so non-quantitative, a "low, moderate, and high" ranking system is used in lieu of a baseline. As a result, there is no valid way to consistently compare alternatives.

- Almost no methodology is presented in Chapter 4, leaving the reader to rely on information supposedly in other documents for the analysis.

- It is not clear why all timber harvest levels are so low, especially since harvest levels have been declining for the past 10 years. The reductions range among the action alternatives from 21 to 64 % of Alternative 1 in the ECRB and 24 to 75 % in the UCRB. There is no discussion of how the harvest levels were ultimately reached. They are considerably lower than levels cited in earlier purpose and need statements. The extent of these reductions clearly will result in significant economic impacts and fail to meet the economic and social needs set forth in Chapter 1.

- In accordance with NEPA, cumulative impacts should be addressed regardless of scale. The projects have yet to recognize the impacts at multiple scales and this stance may jeopardize the legal sufficiency of the DEISs.

- Forest health is appropriately presented in Chapter 1 and 2 but seems to have been forgotten in Chapter 4. Since it is one of the projects major drivers, one would expect the effects of each alternative on forest health to be clearly and prominently presented. Chapter 4 needs to be revised to address impacts to forest health.

Effects of the Alternatives on the Physical Aspects of the Ecosystem

- Rates of fire-induced erosion are often several orders of magnitude greater than observed following modern and responsible soil management practices associated with harvesting. Despite these relationships, the DEISs use levels of harvest and thinning as surrogates for levels of soil disturbance, while completely failing to consider the significant and potentially overwhelming effects of wildfire. The DEISs erroneously conclude that active management alternatives, such as Alternatives 4 and 5, have the highest level of potential soil disturbance, and Alternative 7 has a low level of potential soil disturbance. Failure to properly consider wildfire effects is a recurrent problem within the discussion of alternatives and needs to be addressed.

Effects of the Alternatives on the Terrestrial Aspects of the Ecosystem

- The purpose of an EIS is to present an environmental evaluation that will enhance decision makers' understanding of the issues and options available to them. The Terrestrial Section loses sight of this, however, by stressing differences with almost no weight given to the fact that few differences existed among alternatives. This approach presents a confusing array of peripherally related facts. As a result, this section needs a user-focused rewrite.

- The details of the methods for alternatives comparison are noticeably lacking in this section and the EIS team needs to add more information about them. This section suggests that the agency team compared all alternatives to one another based on a set of similar DRFCs (presented as "criteria"). This is commendable. However, this is also inconsistent with the alternative-specific DRFCs presented earlier in the document. The agency team should eliminate alternative-specific DRFCs to improve consistency of the document and the overall credibility of the analysis.

- The SIT and EIS teams should provide more detail about the rationale for mixing different landscape organizational approaches (i.e., dry forest/moist forest/cold forest versus lower montane/montane/subalpine forest; stand initiation, stem exclusion, understory reinitiation, old forest single story, etc. versus early seral, mid-seral, late seral) within the same document, particularly since they don't seem to overlap well. This is a very confusing approach that will undoubtedly obscure the meaning of the final results. It could potentially challenge the adequacy of the data analysis.

- The terrestrial species effects described in Chapter 4 are primarily based on the results of the expert panel analysis and resulted in the alternatives assessment being based on terrestrial viability outcome rankings. The expert panel analysis is not described in enough detail to evaluate the methodology and assess the objectivity and applicability of the analysis. This is particularly significant in light of the lack of data and potential for bias that can result from group decision analysis.

- The terrestrial viability outcome rankings are based on relatively few species of wildlife which, by definition, are those that are potentially threatened or currently in decline. While this selectively may increase the sensitivity of the analysis to define differences among alternatives, the analysis does not present an outcome based on principles of ecosystem management such as multi-species, holistic and landscape scale considerations. Also, an approach based on species in decline necessarily skews the outcome and magnifies the negative components of forest and rangeland health.

- The theory and applicability of the technical analysis is not documented and presents conceptual problems in terms of ecosystem management. It is difficult to understand how dynamic processes, risk analyses, and the potential for catastrophic events have been incorporated in the viability outcome rankings. Also, it is unclear how the noted levels of uncertainty in past, present, and future analyses are factored into the numerical ranking and plus-minus type analyses that do not lend themselves to probabilistic assessment. These deficiencies need to be addressed.

- The summary and conclusions of viability outcome ranking for different alternatives are based on small differences that may or may not be significant. To rank alternatives with these data is problematic and, in reality, may be more an outcome of the methods of data presentation than an indicator of differences in long-term viability for the Columbia River Basin.

Effects of the Alternatives on the Aquatic Aspects of the Ecosystem

- It would appear that project scientists and managers may not have a realistic understanding of the vast acreage of project area potentially to be incorporated within RMAs resulting from the application of proposed two tiered riparian management strategies by the project (i.e., 20 to 40 million acres, not 0.5 to 2.0 million acres). Proper consideration of true RMA acreage, the relatively restrictive nature of standards and guidelines to be applied within RMAs, and the potential effects of catastrophic wildlife would lead to a substantially different set of conclusions than are suggested within the DEISs.
- It is questionable whether future road density patterns really provide an accurate "proxy" for future fish distributions given the continuously improving land and stream management practices associated with current road development. This assumption, if erroneous, would cause an overestimation of impacts resulting from the active management based alternatives and bias decision makers against their selection and implementation. Similarly, the assumption that overall integrity will coincide with the level of overall protection is a nebulous and largely undefined relationship and may not be scientifically supportable. For example, what is meant by protection? Does this mean the prevention of naturally-occurring fires, which would actually increase the risk of catastrophic fire while reducing the level of protection and subsequently the integrity of aquatic and riparian resources? This assumption needs to be explained further for reader clarity and understanding.
- The discussion of Widely Distributed Native Salmonids misleads the reader as to alternatives' outcomes. The text should discuss the UCRB and ECRB project areas separately to avoid masking individual and sometimes different project area effects. The text should quantify for the reader the predicted magnitude of change, which would illustrate how similar alternatives' predicted outcomes really are. The text should also discuss the precision of predicted outcomes and the degree of confidence authors place on these estimates. The cumulative effects discussion at the close of this section should be revised based on this re-analysis. It should be clarified that Alternative 5 will not always result in decreasing fish populations, but rather that in one or both of the project areas it is predicted to be the best or one of the best riparian management strategies for some species.

Chapter 4. Environmental Consequences
Detailed Comments

Introduction

It is a concern that Chapter 4 will go to the Executive Steering Committee without prior Internal Review of Chapter 4 being separated into one EIS area or the other. Interpretation of the distribution of effects among EIS projects should be the subject of adequate discussion before general distribution.

Also, Internal Reviewers should be provided missing portions of the DEIS documents (e.g., Chapter 4, *Effects of the Alternatives on Integrity..., Monitoring, Implementation*) so that they may be improved prior to general distribution.

Relationship to the Science Integration Team's (SIT's) Evaluation of Alternatives

Page 1, para. 1. It is interesting that the DEISs produced by the ICBEMP are referred to as programmatic. It seems that the levels of specificity of objectives, standards, and guidelines go far beyond the level of detail for programmatic DEISs. For example, programmatic DEISs would not include specific direction such as standards for large wood retention, aquatic pools per mile, etc.

Pages 2-3. The evaluation process appears to have many inconsistencies. First of all, it is hard, if not impossible, to see where the Ecosystem Framework has had a significant bearing on the evaluation of alternatives. No mention of ecosystem principles could be found in the Chapter 4 text. Secondly, there were few cases where an interdisciplinary approach to analysis was taken; instead, the evaluations were mostly focused on discrete topics.

Pages 2-3. Chapter 1 of the DEISs contained a list of "Purposes" of the management plan. It is not clear how these were used as part of the "indicator variables" evaluation strategy. A more complete discussion of the evaluation process is needed so that the reader can understand the logic used to consider the alternatives.

Page 3, para. 2. This section implies that the EIS team either accepted or rejected the analysis of the SIT. What was the basis for their decision making? In earlier presentations to the public, it was always understood that there was no arbitrary override of SIT analysis. A detailed explanation is warranted.

How the Effects of the Alternatives were Estimated

Pages 3-4. This section lacks some of the basic information needed to understand the impact analysis. For example, what (which) is the No-action Alternative? Was it used as the benchmark or baseline for all of the impact analysis? How were effects measured with respect to the benchmark? Is there a standard set of measures that were later generalized into the low, moderate, and high used in the effects summary tables? What was the basis for assigning low, moderate, and high? Overall, this section should be very important to setting the stage for the reader and should be rewritten to provide more information.

Page 3, Source and Nature of Data and Databases. The statement that "Information on terrestrial species was taken from existing literature and knowledge of biologists within the Basin" is inadequate for an independent reviewer to evaluate conclusions drawn from the source material and methodologies presented here.

Page 4, para. 1, Principal Analytical Techniques. The discussion of scientific panels is inadequate for an independent reviewer to evaluate adequacy and objectivity of the panel process. The data presented later (i.e., Effects on Terrestrial Species Viability) are not accompanied by any explanations about what was actually analyzed and how the panel process resulted in objective, unbiased, valid results. This issue of professional biases and risk quantification for qualitative opinions is a significant area that has been presented in the scientific literature and should be addressed by anyone utilizing decision techniques involving cloistered panels of selected experts to make technical decisions.

It is unclear in the context of this same paragraph exactly what is meant by "risks to species populations". How were the risks of potential catastrophic fires to terrestrial species considered in the viability outcome ranking for the alternatives? The text and graphs describing terrestrial species under Alternative 7, for example, suggest that these type risks were ignored. They need to be addressed.

Page 4, para. 3, Principal Analytical Techniques. The nature of the analysis in this document and the analysis techniques and methodologies employed are intricate, abstract, and detailed. Given the complexity of this analysis, the statement that a report prepared by the SIT (and unavailable to the reviewers) documents the approaches and details discussions is not adequate for a meaningful objective review of this document. There appears to be a leap of faith between this introduction and the presentation of results that requires more than the acknowledgment of a reference.

Incomplete and Unavailable Information

Pages 4-6. Much of the first part of this section is written as a broad disclaimer that leaves the reader wondering about the level of analysis contained in the assessments. Management risk is briefly alluded to, but there is little discussion of risk in the text. What are the risk evaluation criteria? The statement that "Though new information would be welcomed, no missing information was deemed to be essential to a reasoned choice................" implies that there is no missing information of any value. Can this be so?

Page 5, Scale of Decision. This section states that the analysis addresses "regional scale trends and changes." What does this mean? No reference to this subject was found in Chapter 4.

Cumulative Impacts

Page 7. The text notes that "...the analysis in the EIS does not in most instances address all possible cumulative effects that may result at the site-specific level." NEPA requires that all impacts, both direct and cumulative, be addressed in an EIS. Unless more detailed analysis is presented, there is a concern that the documents will be considered deficient.

Page 7, para. 5. It is stated that the principle environmental impacts to non-Federal lands are the harvest of timber. The last sentence, which continues to page 8, appears to be in error. It states that projected Federal harvest levels will decline 40 to 60 percent with Alternative 7, but Table 4.5.8 (Chapter 4, Human Uses and Values, page 14) states that Alternatives 2 through 6 will result in a 25 to 67 percent reduction compared to Alternative 1, and that Alternative 7 will result in a 76 to 79 percent reduction. This needs to be resolved.

The paragraph further infers that increased timber production on non-Federal land cannot be sustained for more than a "short-lived" period. After that "short-lived" period, where will the supply come from? If the supply shifts to other domestic supply centers or international sources, neither of these new supply areas will be without impacts, nor will our local economies be without impacts from higher supply costs and lower profit margins. Surely this latter effect will threaten regional businesses and employment and should be addressed.

Page 8, para. 1. The cavalier statement that none of the alternatives will significantly affect non-Federal lands is insulting. First, the statement appears to be made without an analysis to back it up. Second, a 20 percent increase in timber production across non-Federal lands is only an average estimate; local effects surely will be much greater, since not all non-Federal land is equally accessible or capable of timber production increases. Finally, it is ironic and conflicting that a conclusion of no significant impact is made by virtue of existing state forest practices and Federal regulations and incentives applicable to non-Federal lands being in place. For example, on page 8, paragraphs 3-4, it is stated that management on non-Federal land may have direct impacts on wildlife and watershed quality.

Existing management plans for Federal lands are in many ways more restrictive and risk averse than forest practices regulations for non-Federal lands, yet the ICBEMP was chartered because it was determined that existing management plans may be insufficient to comply with existing environmental laws. If forest practices regulations for non-Federal lands provide adequate resource protection so that significant environmental effects will be avoided, why have we not adopted them for Federal lands, or considered them for alternatives evaluation in this DEIS chapter? These inconsistencies need to be resolved.

Pages 7-9. While this section states that the alternatives have "no discernible environmental effects on non-Federal forest or rangelands" there has apparently been no analysis done to prove the validity of this statement. According to the analysis, some timber dependent communities will be adversely impacted, more non-Federal timber will be harvested, and a substantial number of jobs will be lost. Each of these impacts has indirect and/or cumulative impacts associated with them that need to be addressed. At the top of page 9, the author notes the presence of cumulative impacts from this project. One cannot simply dismiss cumulative impacts at their discretion. A list of reasonably foreseeable activities should be presented with rationale why they are or are not considered cumulative with this project.

Page 8. The DEISs state that non-Federal harvest levels would increase by as much as 20 percent in response to a 40 to 60 percent decline in projected Federal harvest with Alternative 7, but that nonetheless, changes in habitat on non-Federal lands are not expected to be significantly affected by the selection of any of the alternatives. By this logic, an increase in harvest on Federal land of 20 percent could also be expected to not significantly affect habitat.

Page 8, para. 3. The document does not clearly disclose what non-Federal actions were considered for cumulative or indirect impacts. They should be listed. In either case, the comparative data on issues such as wildlife species are few and any analysis is likely to be highly speculative.

Effects of the Alternatives on the Physical Aspects of the Ecosystem

It is the job of the FS/BLM team to develop alternatives, each of which can achieve the purpose and need of the project. This involves *all* aspects of the alternatives including the Standards and Guidelines (S&Gs). Soil productivity is a highly site-dependent phenomenon. The impacts that silviculture has on soil productivity can be either beneficial or detrimental depending on the prescription. Adequate attention to S&Gs preparation should have the capability of reducing the effects of silviculture upon site productivity to insignificant levels. The impact analysis prepared for Soil Productivity suggests that the EIS team applied insufficient effort in S&Gs preparation that has led to drastically different effects of alternatives on this critical ecosystem component. The EIS team should spend more time crafting S&Gs that will employ silviculture to enhance soil properties. Doing so will lead to fewer differences among alternatives in this regard, to the benefit of both the ecosystem and the people and other organisms that depend on it irrespective of the alternative eventually chosen.

As noted above, soil productivity is a highly site-dependent phenomenon. Throughout the project, certain stakeholders have made a continual effort to incorporate this fine-scale issue into broad-scale planning. Doing so requires conclusions based on a significant extrapolation of fine-scale data. As a result, the EIS team has reached conclusions that are most likely well beyond the capacity of the data to support. One empathizes with the concerns for soil productivity, but the EIS team must address these concerns at the appropriate scale. It is not the scale of this document.

Assumptions

Air Quality Assumptions

Page 2, First Assumption, First Clause. A fundamental assumption for wildfire is missing and should be added. For wildfire to occur, there must be an adequate fuel condition. Unless fuel conditions exist that can support and carry wildfire, a wildfire will not occur, in spite of weather conditions and an ignition source. Fuel conditions required for wildfire include fine surface fuels for ignition and fire spread, ladder fuels for flames to carry into tree crowns, and stem or crown densities high enough for wildfire to travel above the soil surface.

Methodology: How Effects on Forest and Rangeland Systems were Estimated

Page 3, Soils Methodology: How Effects on Soils were Estimated, para. 2. The statement "Percent bare soil by alternative is discussed qualitatively, since cautions for using the science data prevented its use" needs to be clarified.

Air Quality Methodology: How Effects on Air Quality Were Estimated

Page 3, para. 4. Reference to the Earth Tech document provides the reader with no information about the air quality methodology. Air quality methodology should be summarized and provided. For example, did the methodology address cumulative wildfire events? To what extent were sample data representative of conditions on Federal lands? How representative were the 1990 data? What is the assumed spatial distribution for prescribed fires? These subjects need to be addressed.

Effects of the Alternatives on Soil Productivity and Function

Page 4, Item 1. The discussion of amounts of increased bare soil notes that fire can increase percent bare soil, but unless the fire consumes all organic matter, some organic matter is retained. That seems rather self evident, and would certainly also be true in harvested areas. In fact, retained organic matter may generally be higher following harvesting than following fire. Furthermore, the discussion notes the potential for wildfire-induced hydrophobicity and erosion. There is ample recent and historic evidence of extreme soil effects following wildfire. These rates of fire-induced erosion can be and often are several orders of magnitude greater than observed following modern and responsible soil management practices associated with harvesting. Despite these relationships, the DEISs use levels of harvest and thinning as surrogates for levels of soil disturbance, while completely failing to consider the significant and potentially overwhelming effects of wildfire. Thus, the DEISs erroneously conclude that active management alternatives, such as Alternatives 4 and 5, have the highest level of potential soil disturbance, and Alternative 7 has a low level of potential soil disturbance. Failure to properly consider wildfire effects is a recurrent problem within the discussion of alternatives.

Page 4. Soil productivity is a critical component to ecosystem support and resilience. Yet, the approach used to estimate the effects of the alternatives is too simplistic and will not likely yield useful information. For example, although "bare soil" is not by itself indicative of a loss of soil productivity, it *is* indicative of erosion potential. Even so, it does not independently serve as a useful surrogate for erosion. Bare soil does not cause erosion; water energy does. Various factors affect water energy. This surrogate only estimates one factor, vegetative cover, to estimate loss of productivity. Depending on the inherent erosivity of the soil, the slope length and degree, climate, and other factors, erosion on a site can increase or decrease. Consequently, the authors are attempting to place only one factor into a broad scale estimate of loss of productivity that is really the result of a much broader combination of factors. Use of bare soil independently will not likely be a reliable predictor of soil productivity loss. This deficiency needs to be addressed.

The EIS team dismissed fire impacts as contributors to soil productivity loss. They based this on good assumptions regarding fire effects on soil organic matter levels. The team should apply similar reasoning to the effects of harvesting on soil organic matter levels. Depending on the harvest method, very different impacts to soil organic matter can occur. Shearing and piling can remove relatively large amounts of organic matter; higher levels of residual material combined with chopping could even increase soil organic matter levels. Thinning has comparatively little effect on soil organic matter. Thus, harvest type affects soil organic matter levels differently. Consequently, it may be inappropriate to simply estimate losses of soil organic matter content and soil productivity directly from harvest. Efforts should be addressed on improving the alternative up front through focused standards and guidelines that seek to enhance soil organic matter levels and reduce compaction.

Page 5, Table 4-Soils1. Coarse Woody Debris (CWD) Amounts (tons/acre). How did the EIS team generate these numbers? For example, Alternatives 4 and 6 differ basically in the degree to which research will be conducted during implementation. Yet, Alternative 6 shows as much as three times the amount of CWD on-site. One might attribute some of this difference to slower implementation. Yet, it is probably inappropriate to assume that harvest will always reduce CWD. Indeed, silvicultural prescriptions could lead to many times *more* CWD left on a site than prior to harvest! The results of this impact analysis again lead to the suggestion that the EIS team can do more with S&Gs to enhance soil productivity under desired future conditions than they have apparently done to date. The team should improve the S&Gs, then, differences in CWD among alternatives attributed to harvest should be lower, if not insignificant.

Page 5, Vegetative Conditions Trending Toward HRV. The statement in paragraph 1 "This research suggests that ...such as fire." is true, but again, is a highly site-dependent phenomenon. As a result, the conclusion may be inappropriate for a decision document like an EIS. The impact from the redistribution of nitrogen (N) and other nutrients from soil to above ground will depend on the relative amounts of nutrients in each compartment. Usually, soil stores of N and other nutrients vastly exceed above-ground components. Thus, these shifts in nutrient allocation, while measurable, may or may not be all that significant depending on the site. This paragraph is a good example of the difficulty in trying to apply fine-scale issues to broad-scale planning and should be revised.

Page 5, last para. to Page 6, para. 1. Add an explanation of why the following statement is true: "Late seral stage vegetation within HRV provides a better indication of soil productivity than mid or early stages."

Page 5, Cumulative Effects on Soil Productivity. Other portions of the DEISs do not support the following statement "Alternative 6... it results in the most movement towards HRV." For example, the seral stage of greatest interest in this project, late-seral lower montane, will be most enhanced by Alternative 4. Considering this and earlier reasoning (see the DEIS statement shown in the comment immediately above), Alternative 4 will have a higher likelihood of restoring soil productivity to these systems.

Page 6a, Table 4-Soils 2B: Trends in Vegetation from current for 10 and 100 years... Clarify what this table is measuring. What is moving, vegetationally, in and out of HRV? Is it vegetation structure? CWD? Species composition?

Effects of the Alternatives on Air Quality

General. The reported air quality effects presumably are based on nine wildfire scenarios, which are assumed to be representative of a range of conditions that existed in 1990. How do the scenarios relate to the projected levels of wildfire described in each of the DEISs alternatives? Were projected wildfire activity levels described in alternatives evaluated? If not, they should be evaluated and reported here.

Page 7, para. 4. This paragraph states that nine wildfire scenarios were examined, yet data for only Scenario 2 are presented. What are the other wildfire scenarios (three emission levels for each of three episodes)? Where are the data for the other scenarios? This information appears to be important since all scenarios had at least some grids exceeding PM thresholds and needs to be presented.

Page 9, para. 2. It is reported that a large portion of the Basin will be impacted from the most intense use of prescribed fire. What will be the visibility effects of less intense prescribed fire episodes? The data do not appear to be reported in this section and should be.

What does the modeling effort indicate for wildfire with respect to PM_{10} and visibility? There appear to be no data or concluding statements in this regard, although it was stated earlier that 75 percent of grid cells would exhibit a perceptible change during a high-emission wildfire scenario. What levels of PM_{10} and smoke will be produced from the EIS alternatives? This information should be replaced so the reader may understand the effects of projected wildfire differences among alternatives.

Page 9, para. 3. The quotation from Huff and others (1995) correctly states that use of prescribed fire will reduce the potential of wildfire and PM_{10} emission. However, it is widely understood and acknowledged that mechanical fuel treatment to reduce wildfire hazard will result in similar or greater reduction of wildfire potential and PM_{10} emissions. Mechanical treatment of fuels needs to be addressed in this section so that all air quality effects of alternatives are evaluated. The benefits of mechanical fuels treatments include commodity production and revenue generation, which support ecosystem management goals and objectives for human uses and values. Evaluation of mechanical fuel treatments provides an opportunity to explore integrated management approaches consistent with the project charter.

The second paragraph in the quotation from Huff and others suggests that wildfires are unplanned. This statement is not correct with respect to the alternatives described in these DEISs, which include deliberate action or inaction that affects the predisposition of Federal forest and range resources to wildfire, and specified activity levels for wildfire suppression. In this respect, Federal ecosystem management strategies affect the planned levels of wildfire and, consequently, effects of wildfire on air quality. Lower incidence of per-acre wildfire events on state and private forest land in the Basin reinforces the fact that wildfire events are planned. Wildfire events (number, size, and intensity) are not only planned, they are predictable at the Basin scale.

Effects of the Alternatives on the Terrestrial Aspects of the Ecosystem

Chapter 4 should summarize the environmental consequences of the alternatives. This should include both the differences *and* the similarities resulting from their implementation. The purpose of an EIS is to present an environmental evaluation that will enhance decision makers' understanding of the issues and the options available to them. The project team has focused on only the few differences that the alternatives analysis was able to uncover. They appear to have written this section more for publication in a technical scientific journal than for consumption by decision makers and the general public. This is a common mistake; the scientists preparing this text should step back and remember who the audience for this material is and what their needs will be.

As a result, this section is in need of a rewrite. In the struggle to find and present differences, the section presents data in a scattered approach with little thought to its subsequent utility. The result is a confusing assembly of peripherally related facts. Without significant assimilation, it is impossible to see how decision makers and the public will be able to review this information and use it in any meaningful way.

Assumptions

Page 1, Assumptions for Differences between Alternatives. Assumptions between alternatives for forest lands are based on Federal practices on Federal lands. However, the terrestrial analyses for viability outcome rankings are based in part on non-Federal lands. There is no mention of assumptions for non-Federal lands, and the assumptions for Federal lands, e.g., even-aged timber management strategies, do not apply. The results would be skewed and impacts magnified if they did. This text should be revised accordingly.

Page 1, Alternatives 3-7 Direction. Item 2 under Alternatives 3 - 7 correctly notes that these alternatives would provide a consistent approach for managing aquatic and riparian resources in a landscape context with the primary objective being to maintain or improve aquatic and riparian functions and processes. However, this description is inconsistent with other statements, assumptions, and conclusions regarding riparian management and effects upon riparian and aquatic resources found elsewhere throughout the document. This discrepancy needs to be resolved.

Page 2, Other Assumptions, Item 3. This assumption states all riparian communities had ecologically significant declines historically, and their areal extents currently exist at levels outside of their predicted historical ranges, even though the Scientific Assessment revealed otherwise." Lacking a comprehensive explanation, the EIS team should drop this assumption and substitute SIT information. As currently stated, this assumption leads one to strongly question the scientific credibility of the Landscape Ecology alternatives analysis as well as any results generated from it.

An analysis is only as strong as its weakest assumption. Incorrect assumptions can lead to results that have limited value. Perfect data are rarely available to support an investigation and one must almost always make assumptions before proceeding with analyses. Assumptions usually arise from related evidence that supports the assumption. One can certainly test *hypotheses* that fly in the face of conventional wisdom. This is how one extends the scientific envelope. However, it is rare that one makes *assumptions* when the evidence suggests the assumption is false.

As written, this assumption suggests agency analysts disregarded the best available scientific information in deference to other, unidentified, more correct information. Obviously, this suggests that the SIT information is not the best available information. The agency team must supply a comprehensive explanation for this assumption if they expect the public to accept the results of analyses based on it. This explanation should clearly present the rationale for taking this unconventional path, including complete documentation of research studies underlying the decision. It is incumbent on the project team to demonstrate that researchers conducted these studies with *at least* the vigor of the SIT efforts. Indeed, they should probably have considerably more vigor since the team considers them of higher value. The explanation should also conclusively demonstrate significant flaws in the SIT assessment that led to the decision to disregard its results.

Page 2, Other Assumptions, Item 5. This assumption states "The amount and intensity of fires in the roaded forests are substantially underestimated. The amount of fire will be much more than projected and of larger average size within the coming decades." This assumption requires clarification. Does one evaluate these sentences based on future conditions or is the first sentence referring to existing conditions? This needs clarified.

Page 3, Terrestrial Species Viability Limitations and Assumptions, Item 2. Although this assumption states that habitat data were reviewed at the broad scale, the presentation of results seems to be an unpredictable mixing of broad-scale analysis and fine-scale analysis. For example, the viability outcome ranking analysis (which is based on habitat data) for woodpeckers, nuthatches, and swifts would seem to be fine-scale analysis focusing on within-stand features (e.g., snags). If it were not, than one would expect this group to exhibit similar results and to have been combined with the heterogeneous and ecologically distinct group of cuckoos, passerines, and hummingbirds (data presented in a later section). The problem here is that each scale requires different assumptions and analysis techniques and produces different types of results. This problem of mixing scales and muddling results has plagued the terrestrial analysis since the initiation of the SIT terrestrial assessment. Apparently, it continues to remain unresolved or at least, its resolution is still unclear. It should be made clear in future documents.

Pages 4 and 5, SIT Assumptions. None of the 12 SIT assumptions address issues of forest health, such as catastrophic fire and insect outbreaks. How were these primary issues for this project and the risks associated with them addressed by the terrestrial panels in the assessment of alternatives? Those are critical issues that need addressed in the documents.

Methodology: How Effects on Forest and Rangeland Systems were Estimated

Pages 8-10, Landscape Temporal/Spatial Integrity Methodology: How Effects on Landscape Integrity were Estimated. The "summary of basic criteria" reads like a summary of desired future conditions. Presumably, the SIT measured each alternative for the success of achieving these conditions. However, the details of the methods are noticeably lacking in the document. Consequently, there is relatively little information about methods employed for comparison in this section. The EIS team needs to add more information about methods here.

This section suggests that the agency team compared all alternatives to one another based on a set of similar DRFCs. This is commendable. However, this is also inconsistent with the alternative-specific DRFCs presented earlier in the document. The agency team should eliminate alternative-specific DRFCs to improve consistency of the document and the overall credibility of the analysis.

Page 11, para. 4. The screening of species for the viability outcome analysis is problematic. Of the 548 vertebrate species occurring in the Basin, only 173 species were considered for analysis. Those species that are widely distributed, have no recorded population declines, or are not expected to experience population declines were eliminated from consideration. Consequently, only species that have or may experience population declines and species legally mandated were analyzed. This group skews the analysis and ensures a negative outcome that may or may not be indicative of the total ecosystem. As with the Affected Environment, there is no discussion in the DEISs where the status of wildlife and other terrestrial species is examined from a holistic ecosystem management point of view. This perspective needs to be addressed.

Page 12, para. 1. Reference to the FEMAT as a source for the process of assessing species and habitat outcomes is disconcerting. The FEMAT process was restrictive. Early and repeatedly in this project the public was assured by the SIT and EIS Team Leaders that the EISs would not be limited by the FEMAT approach.

Page 12, para. 2. The reference to secondary habitats as opposed to source habitats is unclear. In this context, secondary habitats need to be defined?

Page 13, para. 1. The recognition of levels of uncertainty for past, current, and future judgments by the expert panels is important. However, there is no discussion of how variability associated with uncertainty was incorporated into the analysis. The data, as presented, are listed with no indications of any factors associated with uncertainty, risk probabilities, or other expressions of variability. This factor should be described.

Page 13, para. 2. The five distinct possible Outcomes for the viability ratings present a range of possibilities integrating habitat distributions, species population interactions, and potential isolation effects. It should be pointed out that different species may have different evolutionary strategies and may be naturally distributed along different points across the spectrum. Some species, e.g., mountain pocket gophers, torrid salamanders, etc., are naturally distributed in isolated habitat patches with limited opportunity for dispersal (Outcome 4). For these species, Outcomes 1 or 2 would not necessarily represent desired conditions, as implied in the analysis. Also, the differences from one Outcome rank to the next may vary from species to species (i.e., the amount and distribution of habitat that is required "to allow species to interact as a metapopulation" will vary substantially from species to species. In the summary analysis, the "distances" between Outcome rankings are presented as equal, which is a distortion of species relationships and should be corrected.

Page 14, Outcome 5. The phrase ". . . and little likelihood of vacant habitat." seems contrary. With strong potential for extirpations and little possibility for interactions among local populations, one would expect the occurrence of pockets of vacant habitat where local populations have been extirpated and no recolonization has occurred.

Effects of the Alternatives on Forest Systems

Introduction

Page 1 Table 4-for 1. Much of this section explains methods, and the agency team should consider moving it to the methods section. The agencies should also provide more detail about their rationale. Mixing different organizational approaches (that is, dry forest/moist forest/cold forest versus lower montane/montane/subalpine forest; stand initiation, stem exclusion, understory reinitiation, old forest single story, etc. versus early seral, mid-seral, late seral) within the same document is questionable, particularly since they do not seem to overlap well. This is a very confusing approach that will undoubtedly obscure the meaning of the final results. Without proper justification, this section implies that the Terrestrial team did not adequately communicate with the Landscape Ecology team during the assessment, resulting in a last-minute, force-fit of landscape information into a terrestrial format. It may challenge the adequacy of the data analysis.

Effects on Terrestrial Forested Community Distribution, Composition, and Structure

Page 3, para. 3, Area Extent of Forested Terrestrial Communities. Effects of alternatives should stress what *will* happen to the landscape as the result of an alternative(s), not what *won't* happen. Using this approach, one could also say that none of the alternatives will bring back the passenger pigeon. Why did the EIS team choose this negative approach in the referenced paragraphs?

Page 4, Trends in Areal Extent of Forested Terrestrial Communities from Current Conditions. This section is very difficult to follow. The reader cannot easily understand the combinations of alternatives, forest structures, compositions, and time frames all at once. The EIS team should organize the section more logically. For example, they might separate the results of 10-year and 100 year projections. Moreover, this section would greatly benefit from the addition of graphics to illustrate the trends. Tables help but a visual display will be clearer.

Pages 5 and 6, Subbasin Departures from Historical Ranges of Variability. The EIS team presents the most important component of this section as almost an afterthought, namely, "Few overall differences exist between alternatives." This is an important finding, but one that the team does not discuss in detail. Why? What potential ramifications does the lack of differences in resulting landscape departure from HRV have on decision-making? Does this infer a greater decision-making space than originally anticipated?

Page 7, Effects on Terrestrial Forested Community Successional and Disturbance Regimes. The EIS team needs to work on the organization of this section. The introduction to this section describes five ways the team compared alternatives. However, the team did not divide subsequent text into these five comparisons. Instead, they chose to lump three of the categories regarding fire into one section and add a sixth section, "Ability to Mimic Natural Forest Disturbance."

Page 7, Successional Transitions. Few overall differences exist among alternatives with respect to subbasin departures. If successional transitions are a direct result of these departures, then it follows that few differences actually exist for transitions as well. As with the "Subbasin Departures" comment above, this section focuses on the differences among alternatives and does not discuss in any length their similarities. Yet, the most remarkable finding of this analysis is that the EIS team found few differences among alternatives. This section exemplifies the concerns expressed in the opening general comment to this section that need to be addressed.

Tables 4-for3a and 4-for3b. Units expressed in this table should be clarified.

Effects on Terrestrial Species Viability

Page 1, Plants, Graph 1. The statement "The overall decline from historical to current conditions . . ." is incorrect. According to Graph 1, the number of plants with high viability outcome rankings is decreasing (i.e., improving). This also illustrates the problem of grouping species with different evolutionary strategies into one category. The five species that naturally occur in patchy distributions are listed in the historic column which, in other cases, seems to indicate species in decline. It is unclear if the status of these five plants is for current conditions or the alternative scenarios; it appears that the baseline for comparison is changing.

There appears to be an inconsistency between the box below the Graph 1 title that states 22 species were evaluated and the footnote that states 5 species were evaluated. Also, were these species evaluated for all conditions? The analysis and discussion are unclear. Further, the Appendix Table referenced in this section contains 26 species. How do these relate to the 22 species mentioned in the text?

Page 2, Plants, Graph 2. The Appendix Table referenced in this section contains 26 species. How do these relate to the 14 species mentioned in the text?

Page 2, Amphibians and Reptiles, Graph 3. The two Appendix Tables for amphibians and reptiles contain 20 species. How do these relate to the 4 species mentioned in the text and the 6 listed on the Graph 3 footnote? Also, on Graph 3 there appears to be an inconsistency between the box below the graph title that states 16 species were evaluated and the footnote that states 6 species were evaluated. Were these species evaluated for all conditions? Why are only 4 species called out in the text? The analysis and discussion are unclear.

The statement that the five listed alternatives "...provide habitat quality ... similar to current conditions or slightly improved ... " does not correspond with Graph 3, which indicates that three are similar and two are less.

Pages 2 and 3, Amphibians and Reptiles, Graph 3. The relationship between the data and graphs and discussion of habitats for these four species is unclear. This information seems to be unrelated to the data. If so, what is its source? Also, it seems to be selective, editorial, and biased.

Page 3, Amphibians and Reptiles, Graph 3, para. 1. The statement at the end of paragraph 1, "... logging near streams was presumed to cause habitat degradation because of siltation." is simplistic and untrue. Logging may cause siltation but active management within riparian systems (Alternatives 3-6) should improve habitat and guard against future habitat degradation by reducing the risk of catastrophic fires and the major siltation problems associated with them. If presumptive statements such as this example are the basis for the expert panel process and analysis, then there is a serious credibility issue that must be addressed regarding the ability of the expert panel process to provide an honest, unbiased assessment of future broad-scale terrestrial habitat conditions.

Page 3, Amphibians and Reptiles, Graph 3, para. 2. The statement that Alternatives 3 and 5 would contribute to further isolation and fragmentation is, in practical terms, untrue when active management is implemented at the fine-scale for areas with wetland habitats. Conclusions such as this are unrealistic with any alternative implemented as a result of this project. A realistic assessment of future conditions for amphibians' habitat would help improve the quality of this analysis.

Page 3, Amphibians and Reptiles, Graph 3, para. 3. The statement that unmanaged reserves would protect the sharptailed snake from continued habitat declines is simplistic and unreal. The protection of snake habitat can be accomplished by active management techniques under Alternatives 3 - 6.

Page 3, Amphibians and Reptiles, Graph 4. The two Appendix Tables for amphibians and reptiles contain 20 species. How do these relate to the 5 species mentioned in the text and the 7 species listed on the Graph 4 footnote? Also, on Graph 4 there appears to be an inconsistency between the box below the graph title that states 16 species were evaluated and the footnote that states 7 species were evaluated. Were these species evaluated for all conditions? Why are only 5 species called out in the text? The analysis and discussion are unclear.

Page 3, Amphibians and Reptiles, Graph 4, para. 4. The statement that Alternatives 1 and 5 show a large increase in the species that display viability problems (6 of 16) does not correspond with the discussion of the 5 species in the text that follows this paragraph or with the data presented on Graph 4.

Page 3, Amphibians and Reptiles, Graph 4, para. 5 and Page 4, Graph 4, para. 1- 4. The relationship between the data and graphs and discussion of habitats for these five species is unclear. This information seems to be unrelated to the data. If so, what is its source? Also, it seems to be selective, editorial, and biased.

Page 4, Amphibians and Reptiles, Graph 4, para. 2. The statement at the end of paragraph 1, "... logging near streams was presumed to cause habitat degradation because of siltation." is simplistic and untrue. Logging may cause siltation but active management within riparian systems (Alternatives 3-6) should improve habitat and guard against future habitat degradation by reducing the risk of catastrophic fires and the major siltation problems associated with them. If presumptive statements such as this example are the basis for the expert panel process and analysis, then there is a serious credibility issue that must be addressed regarding the ability of the expert panel process to provide an honest, unbiased assessment of future broad-scale terrestrial habitat conditions.

Page 4, Amphibians and Reptiles, Graph 4, para. 3. The statement that Alternatives 3 and 5 would contribute to further isolation and fragmentation is, in practical terms, untrue when active management is implemented at the fine-scale for areas with wetland habitats. Conclusions such as this are unrealistic with any alternative implemented as a result of this project. A realistic assessment of future conditions for amphibians' habitat would help improve the quality of this analysis.

Page 4, Water/Shore Birds, Graph 5. The box below the Graph 5 title mentions that 16 species groups were evaluated. How is this reflected in either this graph or the accompanying text? The footnote lists 6 species that were evaluated. Were these species evaluated for all conditions ? Why are only 2 species called out in the text? The analysis and discussion are unclear.

Page 5, Water/Shore Birds, Graph 5, para. 2. How are improvements in harlequin duck habitat mentioned here for Alternatives 2, 4, and 6 reflected in the graphic data? It is unclear to what this statement refers.

Page 5, Water/Shore Birds, Graph 6. The box below the Graph 6 title mentions that 16 species groups were evaluated. How is this reflected in either this graph or the accompanying text? The footnote lists 4 species that were evaluated. Were these species evaluated for all conditions? Why are only 2 species called out in the text? The analysis and discussion are unclear.

Page 5, Water/Shore Birds, para. 5. How are improvements in harlequin duck habitat mentioned here for Alternatives 2, 4, and 6 reflected in the graphic data? It is unclear to what this statement refers. The graph shows viability outcomes for Alternatives 2, 3, 5, and 7 equal to current conditions.

Page 6, Upland Game Birds and Raptors, Graph 7. The Appendix Table for birds contains 21 species of upland game birds and raptors. The text box below the title on Graph 7 indicates only 20 species were evaluated. Also, on Graph 7 there appears to be an inconsistency between the box below the graph title that states 20 species were evaluated and the footnote that lists 4 species that were evaluated. Were these species evaluated for all conditions ? Why are 5 species called out in the text? The analysis and discussion are unclear.

Page 6, Upland Game Birds and Raptors, Graph 7. The reference to potential improvement and the positive benefits with Alternatives 4 and 6 are not illustrated on Graph 7. The graph shows no differences among current conditions and Alternatives 2, 3, 4, 5, and 6. It appears that either *a priori* conclusions were drawn regarding the differences among alternatives or conclusions are being discussed without presenting data to evaluate.

Page 6, Upland Game Birds and Raptors, Graph 8. The Appendix Table for birds contains 21 species of upland game birds and raptors. The text box below the title on Graph 8 indicates only 20 species were evaluated. Also, on Graph 8 there appears to be an inconsistency between the box below the graph title that states 20 species were evaluated and the footnote that lists 4 species that were evaluated. Were these species evaluated for all conditions? Why are 5 species called out in the text? The analysis and discussion are unclear.

Page 6, Upland Game Birds and Raptors, Graph 8. The reference to potential improvement and the positive benefits with Alternatives 4 and 6 are not illustrated on Graph 8. The graph shows no differences among Alternatives 2, 3, 4, 5, 6, and 7. It appears that either *a priori* conclusions were drawn regarding the differences among alternatives or conclusions are being discussed without presenting data to evaluate.

Page 7, Woodpeckers, Nuthatches, and Swifts, Graph 9. The Appendix Table for birds contains 13 species of cavity nesters. The text box below the title on Graph 9 indicates only 12 species were evaluated. Also, on Graph 9 there appears to be an inconsistency between the box below the graph title that states 12 species were evaluated and the footnote that lists 7 species that were evaluated. Were these species evaluated for all conditions? Why are only 3 species called out in the text? The analysis and discussion are unclear.

Page 8, Woodpeckers, Nuthatches, and Swifts, Graph 10. The Appendix Table for birds contains 13 species of cavity nesters. The text box below the title on Graph 10 indicates only 12 species were evaluated. Also, on Graph 10 there appears to be an inconsistency between the box below the graph title that states 12 species were evaluated and the footnote that lists 6 species that were evaluated. Were these species evaluated for all conditions? Why are only 3 species called out in the text? The analysis and discussion are unclear.

Page 8, Woodpeckers, Nuthatches, and Swifts, Graph 10, para. 4. The conclusion that riparian buffers associated with Alternative 5 would be so limited as to provide more isolated and smaller patches of nesting habitat for Lewis woodpecker is an overgeneralization. Riparian management strategies that would accomplish Alternative 5 desired future conditions could maintain and enhance nesting habitat for Lewis woodpeckers.

Page 9, Cuckoos, Passerines, and Hummingbirds, Graph 11. Graph 11 was not included.

Page 9, Cuckoos, Passerines, and Hummingbirds, Graph 12. On Graph 12, the text box below the title indicates 36 species were evaluated. There appears to be an inconsistency between the number of species presented in the box below the graph title and the footnote that lists 4 species that were evaluated. Were these species evaluated for all conditions? Why are only 3 species called out in the text? The analysis and discussion are unclear.

Page 9, Cuckoos, Passerines, and Hummingbirds, Graph 12, para. 2. The graph indicates an increase in three species with "viability problems," not four species over historical conditions. The relationship between historical and current habitat conditions would be more meaningful in terms of ecosystem analysis if it were expressed as a relationship between the total species in the group that were evaluated and the number of species indicating a change.

Page 9, Cuckoos, Passerines, and Hummingbirds, para. 4. This discussion should be expanded. The rationale for why Alternative 5 would "continue to degrade" cuckoo habitat (i.e., woody thickets) and Alternatives 4 and 6 "will enhance the habitat slightly" is not obvious.

Page 9, Bats, Graph 13, para. 5. The group being evaluated is unclear. The Appendix Table indicates that the Bat and Small Mammal panel evaluated 11 species, which included a heterogeneous and ecologically unrelated group of flying insectivores (bats), nocturnal forest rodents(flying squirrels), and rangeland herbivorous lagomorphs (rabbits and hares). Do the 11 species discussed in this section under "Bats" and presented on Graph 13 also include the other species?

Page 9, Bats, Graph 13. The text box below the graph title indicates 11 species were evaluated. There appears to be an inconsistency between the number of species presented in the box below the graph title and the footnote that lists 5 species that were evaluated. Were these species evaluated for all conditions? The analysis and discussion are unclear.

Page 10, Bats, Graph 14. On Graph 14, the text box below the title indicates 11 species were evaluated. There appears to be an inconsistency between the number of species presented in the box below the graph title and the footnote that lists 4 species that were evaluated. Were these species evaluated for all conditions? Why are 5 species called out in the text? The analysis and discussion are unclear.

Pages 9, 10, and 11, Bats, General Comment. Although it was mentioned in the introduction that scientists lack data on many wildlife species, bats should be noted as a group for which there is a paucity of data on status, distribution, and habitat requirements. It is difficult to imagine that enough information exists to do anything but speculate on viability outcomes. For species that are particularly problematic, e.g., the spotted bat, this should be noted and weighted accordingly in the total analysis. In addition, in the discussion of the five species of bats it should be noted that almost all the habitat features that are mentioned as affecting viability outcomes are related to within-stand features, microhabitats, or unique habitat conditions. It should be acknowledged that this group of vertebrates is particularly problematic with respect to broad- scale analyses.

Page 11, Carnivores and Ungulates, Graph 15. The text and text box of the graph indicate that 12 species were evaluated. The Appendix Table, however, only lists 9 species as part of this group. This should be clarified.

Page 11, Carnivores and Ungulates, Graph 15. On Graph 15, the text box below the title indicates 12 species were evaluated. This is inconsistent with the graph footnote that lists 6 species which were evaluated. Were these species evaluated for all conditions? The analysis and discussion are unclear.

Page 11, Carnivores and Ungulates, Graph 16. On Graph 16, the text box below the title indicates 9 species were evaluated. This is inconsistent with the graph footnote that lists 7 species which were evaluated. Were these species evaluated for all conditions? The analysis and discussion are unclear.

Pages 11, 12, and 13, Carnivores and Ungulates, General Comment. While this analysis indicates that alternatives will result in decreased viability outcomes for the group as a whole, it should be noted that some of the assumptions mentioned in the text may not actually be valid at the mid- and fine-scale levels. Assumptions for lynx, for example, suggest that fire suppression will continue in Alternative 2 and that harvest levels for Alternative 5 are actually "aggressive". These examples are highly unlikely.

Page 13, Carnivores and Ungulates, Graph 17. This section discusses viability outcome rankings for seven listed threatened and endangered species. These species are not specifically mentioned in the Appendix Table as implied in this discussion.

Page 14, Carnivores and Ungulates, Graph 18. This section discusses viability outcome rankings for seven listed threatened and endangered species. These species are not specifically mentioned in the Appendix Table as implied in this discussion.

Effects of the Alternatives on the Aquatic Aspects of the Ecosystem

Page 1, para. 1. Since ecosystems are dynamic, evolving, and often constantly changing because of human influence, non-native (introduced) fish species should also be considered when evaluating the seven proposed alternatives. Non-native fishes are important components of ecosystems in both project areas, represent an important group of game fish resources sought and used by the public, as such provide recreational outlets and economic inputs in both project areas, and should be afforded the same level of analysis as native fish species.

Causes of the Effects of Each Alternative on Aquatic Aspects of the Ecosystem

Page 2. Some fairly strong statements about the inadequacy of state regulations relative to protection of riparian processes and functions are made. Out of curiosity, has the project bothered to discuss these comments with the states? Part of the justification for this conclusion is " The goals of States natural resource agencies are generally not specifically aimed to protect aquatic ecosystems and biodiversity, but to meet societal needs while disrupting ecological processes and conditions as little as possible." The DEISs should provide an equally concise description of how Federal project goals differ from those of the States and how these will integrate with the Clean Water Act administered by the States.

Trends on Non-Federal Lands

Page 2, Item 2. Specify by what and whose criteria you have concluded that state regulations "do not fully protect riparian processes and functions?" Do state agencies agree with your statement? Also, by what percentage are processes and functions not fully protected–1, 25, 50, 75, 99 percent? This statement should be elaborated on since it is one of the criteria of the critical assumption that degraded conditions would likely remain degraded.

Page 3, Effects on Terrestrial Species Viability. "Activities such as logging near streams were presumed to cause habitat degradation because of siltation." Once again, there is a biased assumption in the form of activity equals damage, logging equals siltation, etc., with no real consideration of the standards and guidelines that render such impacts so unlikely.

How Effects on Aquatic Systems were Estimated

Pg. 3, para. 1. Effects on aquatic systems of the various alternatives were evaluated by Forest Service and BLM scientists and invited scientists from the EPA, NMFS, and USFWS. Levels of protection, maintenance, and restoration of aquatic and riparian habitats were based primarily on activity levels, riparian area management direction, and ecosystem management requirements. It would appear that project scientists and managers may not have a realistic understanding of the vast acreage of project area potentially to be incorporated within RMAs resulting from the application of proposed two-tiered riparian management strategies by the project (i.e., 20 to 40 million acres, not 0.5 to 2.0 million acres). Proper consideration of true RMA acreage, the relatively restrictive nature of standards and guidelines to be applied within RMAs, and the potential effects of catastrophic wildfire would lead to a substantially different set of conclusions than are suggested within the DEIS.

Page 4, Item 2, last sentence. Are future road density patterns really an accurate "proxy" for future fish distributions given the continuously improving land and stream protective practices associated with current road development. This assumption, if not supported in the scientific literature and therefore erroneous, would cause an overestimation of impacts resulting from the less conservative alternatives and bias the decision maker against their selection and implementation.

Effects of the Alternatives on Aquatic Systems

Page 4, para. 1. The assumption that overall integrity will coincide with the level of overall protection is a nebulous and largely undefined relationship. For example, what is meant by protection? Does this mean the prevention of naturally-occurring fires, which would actually increase the risk of catastrophic fire while reducing the level of protection and subsequently the integrity of aquatic and riparian resources? This assumption needs to be explained further for reader clarity and understanding.

Page 4, Item 1. Descriptions of what riparian areas and streams would look like under Alternative 5, as well as the "intent" of this alternative, are mis-stated in the impact analysis as they were in Chapter 3. This inaccurate description continues to predispose the lay reader and decision makers toward rejection of this management approach when, in fact, the "intent" of Alternative 5 is the "proper functioning condition" of riparian communities. This impression should be corrected in the text and Alternative 5 re-evaluated based on its true "intent." This same comment generally applies to the remainder of the Aquatics Effects discussion.

Pg. 4, Item 1. The DEISs conclude that passive management of RMAs, and wider "more is better" RMAs no matter how extensive their area and passive "less is better" management of watersheds no matter what threats of catastrophic fire are posed, leads to better outcomes for riparian and aquatic functions. Examples of where this logic erroneously leads are numerous. For instance, see Aquatic Effects page 4: "Alternative 4, with its higher activity levels, may pose greater risks to aquatic ecosystems than does the more cautious approach of Alternative 6 and the more restrictive approach of Alternative 7," and at page 7: "Alternatives 4 and 6, however, offer more flexibility than Alternative 7 with respect to activities permitted in riparian areas and wetlands, and, consequently, there are additional risks to aquatic resources due to this flexibility," and at page 12: "In terms of the overall effects of the alternatives on aquatic systems, Alternative 7 is expected to most likely meet aquatic goals and objectives because of its direct and specific direction for protection of riparian areas and unroaded areas." To the contrary, just the opposite may be far more likely when the extensive acreage of RMAs and the potential effects of fire within RMAs are realistically evaluated.

Pg. 4, Item 2. The DEISs conclude that because fish distribution and road density were correlated in the past, road density provides a "proxy for management related landscape effects". However, road density does not cause impact to riparian and aquatic systems. Sediment from roads, roads built in and adjacent to streams and riparian areas, and access provided to recreationalists does. In other words, there is no direct causal mechanism linkage of road density to stream impact. Furthermore, if future roads were built and managed in the same manner as they have been historically, then future impacts would likely be similar. However, no one can seriously believe that this will be the case under any of the 7 project alternatives. And yet the inescapable trap that the current DEISs logic falls into is that greater levels of management activity - roads and harvest - are tantamount to greater levels of impact. (And once again, the likelihood of wildfire effects seems to be dismissed). But, in fact, this will not be the case if riparian area and aquatic functions are provided fully, and if soils, erosion, and sediment are managed effectively. If they are, there are few or no impacts. Yet the "less is better" logic simply leads to conclusions within the DEISs that more impact and even degradation is associated with more active ecosystem management approaches. However, when true acreages of RMAs are considered along with a realistic assessment of need and the ability to manage vegetation within RMAs in the face of present and future wildfire risks, far different conclusions about the relative risks and impacts of the various alternatives might be reached.

Pg. 5, Item 2. This section states that Alternative 5 ecosystem management requirements are similar to those of Alternatives 4 and 6 (actually, analysis of watersheds and riparian areas, and management requirements are identical), except in timber emphasis areas where watershed-scale or site-specific analysis is required. It also states that Alternatives 2-7 adequately protect ecological functions within riparian areas *except Alternative 5 within timber emphasis areas*. It is not clear why this would be true for Alternative 5 timber production emphasis areas. Alternative 5 requires that riparian functions and Riparian Management Objectives be assessed on a site-specific basis prior to management actions within, or which could affect, riparian areas. It also requires aggressive control of erosion and sediment processes irrespective of location. It calls for management of riparian functions within one tree height for fish-bearing stream channels, and somewhat narrower widths for nonfish-bearing channels, at minimum - essentially no different than called for within Alternatives 4 and 6. Have the DEISs somehow concluded that these widths for riparian functions are inadequate? Alternative 5 clearly describes circumstances where timber harvest is acceptable within RMAs. Have the DEISs concluded - without saying so - that management within RMAs, or at least within a width of one tree height, is unacceptable? It appears that they do: See page 5: "Within the timber emphasis areas of Alternative 5 ... the size of the RHCAs (RMAs) is not likely to be adequate to fully protect aquatic resources, primarily because of their limited widths and lack of protection for intermittent streams." The DEISs need to clearly explain the basis for these conclusions.

Page 5, Item 3. While page 5 of the introduction to Chapter 4 indicates that "The best available information was used to evaluate the options and alternatives," this does not seem to be the case in the evaluation of acreage within riparian management areas (RMAs). Realistic assessment of the likelihood of actually managing the project area in an ecosystem management context and realization of project goals and objectives is dependent on realistic evaluation of RMA acreage under each of the alternatives. The DEISs have not done this and need to. Accurate accounting of RMA acreage, using even the minimum width requirements adjacent to streams, will reveal that the DEISs have underestimated RMA area in all alternatives by at least one order of magnitude.

Page 5, Item 3, Figure AQ-2. This figure indicates that under Alternative 2, there would be 1,500,000 acres of RMA. This is only 2 percent of the 75,000,000 acres of FS/BLM land. However, previous analysis by some Eastside National Forests and others has revealed that under the Alternative 2 RMA approach, 20 to 40 percent of the total land area would fall within RMAs. Indeed, an analysis has been conducted of a 4th level HUC where 21 percent of the watershed fell within RMAs using the **minimum** width definitions. Similarly, approximately 1,250,000 acres of RMA are shown for Alternative 4, or 1.7 percent of the total area. However, this analysis indicates that total RMA Zones 1 and 2 (including slope adjustment factor) area actually occupies 33 percent of the watershed analyzed. Although analysis of a moist watershed where wider buffers and greater stream density would occur has not yet been completed, a preliminary estimate of RMA area in the watershed being examined is 70 percent. The DEISs also show that approximately 2,000,000 acres fall within RMAs in Alternative 7, which is equivalent to only 2.7 percent of the total area. However, RMA area under Alternative 7 is even greater than that under Alternative 4.

Page 7, Introduced Fish Species. See comment on Aquatic Effects, page 1, paragraph 1 regarding introduced fish species.

Page 7, Native Fish Species. The problem with "activity equals degradation" becomes especially apparent in the evaluations of alternative effects on fish species. Rates of management activities along with riparian management direction were used to evaluate effects of the alternatives on key salmonids and sensitive fish species. In addition to the aforementioned problems with activity rates, there seems to be confusion about the nature of effects from riparian management area direction.

Page 7, Widely Distributed Native Salmonids. This section would benefit from discussion of the following three points.

1. Describe predicted project effects in the UCRB area separately from those in the ECRB area. The present text discusses the two project areas combined, which masks individual and sometimes different project area effects.

2. Describe in the text the predicted magnitude of change in the number of subwatersheds containing populations of key salmonids as compared to current conditions. The text presently states that, generally, an alternative will result in an increase (implying a "good" outcome) or decrease (implying a "bad" outcome) in the number of populations. However, as discussed below, the predicted magnitude of increase or decrease is relatively small for nearly all alternatives. Magnitude of change should be calculated as a percentage using data in the tables accompanying the text, then shown in the tables and discussed in the text.

3. Given the relatively small magnitude of change over a lengthy 100-year time period, the DEISs need to explain/describe the precision and sensitivity of the estimates; the confidence intervals on these estimates; and whether or not estimates for the various alternatives represent statistically significant differences.

Examples of text clarification that would result from the above discussions follow.

1. Page 7, Bull Trout–The text states strong populations of bull trout would decrease under Alternative 5. In fact, bull trout strong populations would increase 3.6 percent in the ECRB area and decrease only 3.3 percent in the UCRB area over the next 100 years. By comparison, under Alternative 7 (depicted as the most conservative strategy) strong populations would increase 12.7 percent in the ECRB area and only 3.3 percent in the UCRB area; under Alternative 1 (depicted as the least conservative strategy) strong populations would decrease only 3.6 percent in the ECRB area and 10.2 percent in the UCRB area. Further, comparing Alternatives 2 through 7 against current conditions indicates the percentage of subwatersheds containing bull trout populations 100 years from now would vary from 101.4 to 106.9 percent in the ECRB area and from 96.4 to 103.0 percent in the UCRB area.

2. Page 8, Westslope Cutthroat Trout–Comparing Alternatives 2 through 7 against current conditions indicates that 100 years from now:

    - 96.4 to 103.9 percent of the subwatersheds in the UCRB area would contain strong populations and 99.9 to 100.1 percent would contain populations of westslope cutthroat trout

- 100.0 to 104.8 percent of the subwatersheds in the ECRB area would contain strong populations and 100.0 to 101.2 percent would contain populations of westslope cutthroat trout

It is difficult to discern declining trends among some of these alternatives, even after a 100-year period as suggested in the text, and especially for the ECRB area. The text should be clarified accordingly and effort should be taken to describe how similar the predicted outcomes of most alternatives are. The text should be tempered in discussing opportunities to actively restore depressed populations by adding some discussion on the projected period of time (perhaps 100s or 1,000s of years or not at all) to return to historical (1850s) conditions. These same comments apply to other key salmonid discussions.

3. Page 8, Redband Trout–In the ECRB area, Alternative 5 offers a slightly better strategy for increasing strong populations of redband trout and maintaining the distribution of redband trout than any of the other alternatives. This should be pointed out in the text, which presently combines the two project areas and masks the beneficial predicted outcome of Alternative 5 in the ECRB area.

4. Page 8, Steelhead–The rationale and quantitative support for the statement that Alternative 5 would contribute to continued declines in steelhead populations need to be provided. Data presented in the accompanying table appear to contradict this, indicating the number of subwatersheds supporting populations and strong populations of steelhead 100 years from now will be identical for Alternatives 2 through 7.

   It is important, as stated in the text, to acknowledge factors outside FS/BLM administered lands that affect steelhead populations. This point should be made at other appropriate locations in the text.

5. Page 9, Stream-type Chinook Salmon–The same general comment offered for steelhead applies to this species. In addition, the distribution of populations and strong populations under Alternatives 2 through 7 would be the same or greater 100 years from now compared to current conditions.

Pages 10 and 11, Narrow Endemic and Sensitive Native Fish Species. The same comments offered on native salmonids apply to this group of fishes since analysis results for salmonids were often broadly extrapolated to narrow/sensitive species. Also, there continue to be mis-statements regarding the predicted outcomes under Alternative 5 as well as a lack of quantification on the magnitude of change. These need to be corrected.

Cumulative Effects on Aquatic Systems

Page 12. This discussion appears to be a sweeping, almost intuitive assessment of expected outcomes that fails to recognize results of the more detailed analysis on the previous pages. The cumulative analysis does not address project area differences nor does it recognize that different management strategies may be appropriate for different areas. This brief discussion does not begin to do justice to the huge analytical effort expended by the project team in assessing aquatic effects. Oversimplification appears to have masked important findings that the public and decision makers have a right and need to know.

Pages 15 and 16, Table 4–Fish 1. Viability analysis results contained in this table should be presented on a project area basis for the same reasons as discussed above for fish distribution predictions. It is difficult to understand how viability can be expected to decrease for all native salmonids under Alternative 5 while the distributions of some species' populations and strong populations are expected to increase over the next 100 years, at least in the ECRB project area, under this same alternative. Also, if possible, the magnitude of expected change in viability should be quantified rather than expressed as "+, -, or 0" to provide a more meaningful comparison of alternatives.

Effects of the Alternatives on Human Uses and Values

How do social and economic topics integrate with other ecosystem components? It appears that the analysis was conducted in isolation, rather than in an integrated fashion.

Assumptions

Page 1, para. 3, last sentence. There is no identification of the two tables that are assumed to be the basis for the economic impact analysis. Without Tables 3-22 and 3-23, it is difficult to accurately guess the focus of economic analysis. Some of the topics that need to be addressed for each alternative are timber harvest, changes in jobs and payroll in the timber industry, changes in the recreation industry (including jobs and payroll), changes in special forest products (including jobs and payroll), impacts on county budgets, impacts on school district budgets, and impacts on the private sector.

Page 1. None of the assumptions are presented in this section. Without more information, it will be impossible for the reader (or decision maker) to understand the analysis.

Page 1. Impacts appear to be masked due to analysis being conducted at the broad scale.

Causes of Effects of Each Alternative on Human Uses and Values

Page 2, para. 1. Causes are said to be measured by a set of indicators. Given the concerns over forest health that are articulated in detail in Chapter 2 (Terrestrial Ecosystems–Forestland) and that were some of the drivers for this project, a measure of change in risk of catastrophic events (both frequency and acreages involved) would have been expected among the indicators. This is an oversight that should be corrected.

Page 2, para. 2. One of the causes of effects is given as "decreasing open road densities." There are many reasons that increased road mileage (which may or may not increase road density) should be considered in the analysis. For example, more roads will be needed to handle increased use of forest lands for recreational purposes. Likewise, roads will be important to manage fire adequately and safely and to provide for harvest of timber and special forest products.

Page 2, para. 4. The discussion refers to trends and recent management actions, yet no mention is made of a baseline. What is the basis for talking about trends? Which one of the alternatives is the No-action Alternative? This information needs to be provided so that there is some way of assessing change resulting from each of the alternatives.

Page 3, para. 1, last sentence. Rather than seeing a discussion of declining plant and animal populations, one would have expected to find some discussion of changing social and economic conditions.

Page 3, para. 5. This paragraph identifies many topics with public support, yet it mentions none that pertain directly to people, social structure, jobs, and family and community stability, to name a few. How does the public feel about these topics? This information should be added to Chapters 3 and 4.

Methodology: How Effects on Human Uses and Values were Estimated

Page 5, para. 2, last sentence. It is noted that the location and timing of some effects will have a "high level of uncertainty," which limits ability to assess impacts. Simply because the analysis is difficult, the agencies are not relieved of the task of thorough impact analysis. In this situation, both a "reasonable case" and "worst case" analysis of impacts need to be conducted, since in conditions of uncertainty, the two may be identical.

Effects of the Alternatives on Human Uses and Values

Page 5, para. 3. This discussion notes several types of impacts, but there are many more relevant impacts that have not been mentioned. All the potential impacts need to be listed, not just the few that it appears the DEISs will address. Willingness to pay, especially when no detailed information has been developed for this project, is not a valid approach.

Effects of Population Growth - Urban/Wildland Interface

Page 5, para. 4. This discussion references the presence or absence of a region-wide policy for fire protection in the urban/wildland interface (HU-O7 or SE-O8). There may be a mis-statement here, since the policy would exist for all alternatives, but just not be implemented under Alternative 7. This is just one example of how difficult it is for the reader to move from Chapter 3 to Chapter 4 and maintain a clear understanding of what is and is not in an alternative. A qualitative statement of impacts in this area is inappropriate. Given the information available, the assessment team should be able to determine relative risks, probabilities of events, and expected impacts for each alternative and describe them in the DEISs.

Page 6. It is possible to generate expected risk values instead of just using terms such as high, medium, and low that have only a very general relative meaning. The analysis should be modified accordingly. For example, the risk levels in various parts of the urban-wildland fringe should be known and thus the expected impact can be calculated. The discussion notes that "4 and 6 are most effective," which fails to recognize significant differences in risk reduction between the two alternatives. Since Alternative 4 implements changes much more rapidly than Alternative 6, the reduction in risk should be significantly greater. Having a crude measure of impacts apparently does not allow for accurate discrimination between alternatives. Quantifying impacts over the 10-year planning horizon will help a great deal. One alternative should be identified in the DEISs as the baseline for all analysis. Which one is it?

Effects on Recreation and Scenic Integrity

Pages 7-10, Recreation and Access. This section violates a number of basic analytical rules by setting up different objectives for different alternatives so that there is no valid way to measure and compare impacts of alternatives. Then, unrelated to the objectives, a totally new set of measures are applied. For example, one objective calls for a broad range of .... opportunities, yet none of the alternatives are evaluated for a broad range. (If they were, Alternative 7 would rate lowest.) Another, only partially analyzed, objective says to provide opportunities for public access for land and water activities. (If it was fully analyzed, Alternative 7 would rate lowest due to limitations on accessibility and lack of facility development.) A third objective, with no analysis, calls for programs to be financially self-supporting. (Again, Alternative 7 would rank lowest with highest costs per dollar returned.)

Instead of evaluating recreation variables, the analysis focuses on road density, which may or may not be a valid surrogate for accessibility or any other relevant measure. The apparent conclusions in Table 4.5.3. are difficult to understand. First, some of the major impact areas for the Eastside, such as hunting which is supposed to provide 49,000 jobs, and motor viewing which has by far the highest attendance figures, have no impact data shown. Road closures and restricted access to reserve areas in Alternative 7 should reduce benefits and jobs, but for some unknown reason, this is not the case.

Risk of catastrophic events that could make some areas highly undesirable or unusable for recreation should also be noted. In particular, high fire risk, especially in reserve areas, should reduce the overall recreation rating of Alternative 7 to lowest. Alternative 6, with its "go slow" approach to managing catastrophic risk, should also have a relatively low rating during this planning horizon. By contrast, alternatives such as Alternative 4, that provide access and a range of recreation opportunities while reducing risk of catastrophic events, should have the highest recreation rating.

Page 11, para. 2, Scenery. It is difficult to understand how the concept of scenic integrity is being applied at a regional level. A landscape, as used to measure scenic integrity at a broad scale, is a meaningless concept and should be deleted from the analysis. Scenic integrity is site specific and even differs according to the direction one is looking while standing at a specific place. Ultimately, scenic integrity in the DEIS is measured by wildfire risk reduction and air pollution risk reduction. If these measures have to be used, then information should be provided on a quantitative basis. It should be noted that all of the pollution risk reduction measures are moderate except Alternative 7, which is low. Why all the similarity?

Effects on Forest Products Outputs and Related Employment

P. 15-17. As a benchmark for the No-Action Alternative and for calibrating CRBSUM, the annual average ICRB harvest volume has been previously reported as 2.8 bbf for the period 1985-1994. A higher benchmark would be provided if data for the years 1993-1994 are appropriately deleted because of the influence of timber sale gridlock and interim amendments to forest and land management plans. The benchmark for these historical time periods should be shown in the table instead of reference to 1993 harvest levels, which do not reflect historical harvests or No Action. Comparison of projected timber volumes to 1993 is grossly misleading because it suggests that future yields would increase instead of showing that yields are projected to decrease significantly.

All of the alternatives, except Alternative 1, show reductions in harvest volume and acres. Why does harvest volume not increase under some alternatives, especially since net growth is occurring overall (Bueter, J., *Legacy and Promise: Oregon's Forests and Wood Products Industry*, 1995)?

Why do Alternatives 2 through 7 show future harvest volumes at 21 to 64 percent of Alternative 1 No Action for the ECRB EIS, and 24 to 75 percent of Alternative 1 No Action for the UCRB EIS? The total annual timber yield is projected to be only 23 to 70 percent of Alternative 1 No Action. How can this reduction be explained in light of high stocking densities, fire hazards, salvage expectations, and forest health problems?

Why do Alternatives 2 through 6 produce such a narrow range of timber outputs (all are within 21 to 28 percent of each other in volume reduction from Alternative 1 No Action?

Why are percent reductions in volume among alternatives (compared with No Action) greater than percent reductions in harvest acres? Since precommercial thinning is counted separately, wouldn't the proposed reductions be proportionate? This should be explained.

The No-Action Alternative produces 11.99 mbf/acre. Why do the volume yields vary on a per-acre basis? They should be similar, especially if precommercial thinning is accounted for separately.

How were the timber volume and harvest acre estimates determined? Are these absolute numbers, or the midpoints of ranges of possible outcomes? What assumptions have been made? Is salvage timber volume included in these estimates? This missing information needs to be presented in the DEISs.

It would appear that roughly half of the jobs in forest products would be lost in each portion of the Basin. What definition of jobs is being used here? Are these direct jobs or do they include interindustry linkages such as indirect and induced jobs? The same method of calculating jobs for recreation should be applied to the forest products industry so that direct comparisons can be made.

Mention is made of the general location of future timber harvest on page 16. More detail is needed in the DEISs to fully understand impacts.

Page 17, Table 4.5.9. The document needs to include estimates of the number of jobs created by forest thinning.

Effects on Sustainable and Predictable Levels of Timber

Pages 17-18. This entire section needs to be rewritten so that it is intelligible. The section implies that some alternatives considered in detail for evaluation by this project may not comply with the Endangered Species Act. Why was effort put into evaluating alternatives that are infeasible?

Since the scale for evaluation of aquatic species health, terrestrial species health, and landscape pattern and disturbance is a relative one, does a rating of "L" (low predictability) imply that species or ecosystems may be placed in jeopardy, or does the scale merely imply that some alternatives are more predictable than others and all alternatives avoid placing species or ecosystems in jeopardy?

Does this section imply that a predictability rating for landscape pattern and disturbance indicates the extent to which a species may be placed in jeopardy? This does not appear to be appropriate since the correlations between landscape pattern and disturbance and species habitat requisites have not been determined or presented. Furthermore, it is unlikely that a reliable correlation could be obtained.

Table 4.5.10 is entitled, "Relative Rating of Each Alternative on 'Predictability' of Commercial Timber Harvest Activities," yet predictability estimates appear to be for ecosystem qualities other than timber harvest. What does the symbol, N, refer to in the Table? No data? Not predictable?

Pages 17-18. This section seems to say that, although projected timber outputs are included in Table 4.5.8, they aren't the real projected outputs. If this is the case, another table needs to be generated with the true projected outputs. Predictability is considered in a very narrow sense here; current forest health concerns appear to have been overlooked. For example, Alternative 7 will perpetuate forest health problems that will result in even higher risks of catastrophic fire. That being the case, Table 4.5.10 should be modified to indicate that Alternative 7 would have the lowest rating for aquatic species health (due to high probability of destruction of aquatic habitat) and the lowest rating for terrestrial species health (due to high probability of catastrophic fire that could destroy species, their habitat, corridors, and strongholds). Rather than just having low, moderate, and high as indicators of predictability, the actual estimated numerical probabilities and the methodology used to develop them should be shown.

Effects on Utility Corridors

Page 19. In an ecosystem approach, one might consider incorporating utility corridors into fire management strategies in the urban-wildland interface. By doing so, access to utility corridors could be readily maintained and fire suppression managed for multiple purposes. The issue of aesthetics and EMF generation from high voltage lines could be mitigated by placing towers and lines nearest the forest so that there would be a tree, rather than sky, background.

Effects on Road Systems

Page 19. No analysis of the impacts on road systems has been included. The text should be revised to include this information. No rationale has ever been presented that adequately links road density to accessibility or the need to reduce roads. Road reduction appears to have been arbitrarily arrived at by the project team without any preceding environmental review. Properly, various road accessibility strategies should have been incorporated into the analysis.

Effects on Fire Management Costs

Page 20. Table 4.5.14, dealing with fire management costs, presents only a small component of the total cost of fire impacts. Value of lost timber, acreage of habitat lost, estimated rehabilitation costs, lost recreation opportunities, and the likelihood of loss of human life should all be added to this table so that readers and decision makers have a good understanding of fire impacts for the various alternatives. The text associated with this table implies that more information on impacts, such as in the urban-wildland interface, is available. This information should be added to the text.

Effects on County and Community Resiliency

Pages 22-25. This section needs to have employment statistics and other information presented in tabular form. As it stands, it is difficult to tell what is author commentary and what is fact. For example, on page 23, recreation jobs are discussed, but there is no mention of how the jobs were calculated, the total jobs, or the distribution of jobs. All of this information is important to an understanding of project impacts. Mention of "assumptions" is made in the discussion of recreation jobs. What are these assumptions? Are they realistic? How do primitive and semi-primitive acres generate jobs relative to other activities such as timber harvest and processing for forest products. What are the differences in per worker earnings in the different types of activities? All of this important information needs to be presented in the DEISs.

Page 23, para. 4. In Chapter 2, it was noted that the existing Forest Service criteria for determining timber dependent communities were modified. The result was that the criteria for determining timber dependency became more stringent and more communities lost their timber dependency designation. This appears to be an attempt to downplay the importance of Federal timber to communities in the region through a process of statistical elimination. To ensure that impacts are correctly measured, NEPA would call for a conservative approach to ensure that all reasonable impacts were considered. In addition to using the 1987 criteria, there should be a discussion of declines in timber harvest over the past decade. Many of the impacts of this decline have lagged effects on communities that should be identified and discussed. The analysis of timber dependent communities should be revised in the DEISs to comply with NEPA.

Lagged effects should also be considered in the discussion of community resiliency. Often a community and families can absorb impacts for some period of time through use of savings, deferral of expenditures, and other short-term strategies. After some time, these strategies are no longer available and true impacts set in. For this reason, reduction in timber harvest over the past 10 years should be part of the baseline analysis.

There is no analysis of cumulative economic impacts in this section. A recent study by Robison, McKetta, and Anderson noted that impacts from mill closures extended beyond the timber dependent community to regional trade centers. Information of this sort needs to be quantified and added to the analysis.

Nowhere in the analysis can one find a summary discussion of all of the economic impacts associated with each of the alternatives. This summary should be added.

Barriers to Implementation: Estimate of Potential Conflicts with Other Plans or Laws

Mining

Page 1. This is an interesting section; it appears that the project is looking for ways to preclude some activities, such as mining, that are presently allowed rather than use existing laws and regulations to ensure that they are reasonably compatible with other activities. It might be simpler to work with existing laws such as NEPA to ensure that impacts are minimized and/or mitigated.

Reserves

Page 1. It is surprising that there is not discussion of legal barriers to Alternative 7 mentioned in the description. This discussion should be moved into Chapter 3 so that readers are aware of the implications of Alternative 7.

Page 1. The statement of this barrier raises a much bigger issue than discussed. The agencies face the possibility that some of the management strategy could only be implemented on some but not all Federal land, given the status of statutory authority. Has the DEIS fully analyzed the impact of a particular alternative being only partially implemented? Partial implementation, depending on the management direction being analyzed, may be worse than full or no implementation.

Contracting Procedures

Page 2. One of the points made in this discussion is that there is no way of controlling timber sales so that the harvest is processed in the vicinity. It should be noted that this has become more of a problem as the number of Federal timber sales have declined and mill operators have had to seek timber outside of their traditional supply areas. An obvious solution is to make more Federal timber available at a variety of locations.

Federally Advisory Committee Act (FACA)

Page 3. While the statement of the problem is accurate enough, the recommendation misses the target. FACA should not be seen as a threat to public involvement. To the contrary, it is a tool to guarantee fairness and openness in advisory committee operations. Public involvement comes in two kinds: notice and comment, and advisory committees. FACA does not impact notice and comment public involvement. To the extent the agencies desire to "increase levels and types of opportunities for public involvement'" FACA may regulate the use of advisory committees, but all should agree that fairness and openness in these committees is laudable. It should be noted that FACA does not limit the number or purpose of advisory committees. However, on February 10, 1993, President Clinton issued Executive Order 12838 imposing on his Administration additional restrictions on advisory committees beyond those in FACA: he ordered each agency to reduce the number of advisory committees by one-third; and he prohibited the creation of new advisory committees except where an agency head finds a compelling need and the Director of the federal Office on Management and Budget approves.

Opening Size

Page 3. In talking about an exception to the 40 acre rule, the Forest Service and BLM touch upon a fundamental idea that requires treatment in its own section. Whether referring to existing statutes, regulations, or planning guidance or guidance put in place through this planning process, an agency must be prepared to use the exceptions that are written into an otherwise narrow rule. The agency's flexibility to reach its goals is found in the exceptions. If an agency does not take advantage of available exceptions, the exceptions might as well not been provided for in the first place. Exceptions exist because general rules, no matter how thoroughly though about and analyzed beforehand, do not always make the best sense given a particular factual situation. Whether the agency is considering entering a no-harvest area for timber harvest or building a road in a roadless area, activities should go forward using available exceptions to the general rule if the agency's goals will be advanced by such activities.

Adaptive Management

Page 4. This section merely recognizes that current legal requirements for plan modifications and amendment may hamper monitoring. The importance of this issue requires better and more extensive treatment.

UNION COUNTY
Board of Commissioners

JOHN J. HOWARD, Chairman
STEVE McCLURE, Commissioner
LORENCE D. SAVAGE, Commissioner

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April 11, 1996

Jeff Blackwood
Eastside Ecosystem Management Project
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Walla Walla, Washington 99362

Steve Mealey
UCRB Ecosystem Management Project
304 North 8th Street, Room 250
Boise, Idaho 83702

Dear Jeff and Steve:

Attached are our comments on the March 26, 1996 versions of Chapters 1,2, and 3 of the Eastside and Upper Columbia River Basin DEIS's. We appreciate this opportunity to relay our comments and recommendations on this important material.

As I'm sure you will appreciate, the outcome of this project could have a significant impact on the social and economic well being of Union County. Included are summary comments followed by a detailed analysis. The latter is organized by chapter, subject, heading, and page for more efficient review by your staff.

The April 4 version of Chapter 4 and Additional Materials for Chapter 3 were received on Tuesday, April 9. We are still in the process of reviewing that material and will do our best to send you detailed comments by Thursday or Friday (April 18 or 19).

I would be happy to discuss these comments further if you wish. Again, thanks for your consideration of our recommendations.

Sincerely,

John

John Howard
Union County Commissioner

Comments on the March 26, 1996 Draft Eastside and UCRB EIS Chapters 1, 2 and 3

Summary

General

- These versions of ICBEMP DEIS Chapters 1,2 and 3 are much better written than the earlier versions. Further, the texts are much more objective and contains less value-laden language .
- The UCRB EIS chapters are generally well organized and presented. While the Eastside EIS chapters much more closely follow the UCRB EIS chapters, they present additional opportunities for improvement.
- The presentation of forest and range clusters is a significant step in integrating the analysis with ecosystem management strategies.
- Unfortunately, most of DEIS Chapter 2 still deals with individual components of ecosystems without discussion of their interrelationships. It was hoped that ecosystem-level discussions, rather than the species by species accounts, would be presented.
- DEIS Chapter 3 is extraordinarily complex. It is extremely difficult for the general public to understand the alternatives as presented in Chapter 3 and to make comparisons among them.
- DEIS Chapter 3 is fraught with inconsistencies and it is questionable whether DRFCs, objectives, standards, and guidelines for each alternative are compatible. The fact that categories of objectives, standards and guidelines are not addressed consistently among alternatives exacerbates the problem of understanding the alternatives presented.
- The timber output tables show a significant reduction for all action alternatives. This has been explained publicly as resulting from future budget constraints. Congressional policy makers need to make those decisions. The EIS Team needs to objectively describe solutions to forest health and the social and economic needs, regardless of the cost.
- Alternative 2 is not a No-action Alternative since declaring interim guidance (Eastside Screens, Pacfish, and Infish) permanent is an action .

Aquatic and Riparian

- It would be valuable to the reader to provide estimates of historical population sizes, variances, and the bases for these estimates (e.g., define the time-frame for determining a local population's "historical size or density." It is not clear from the text whether the "historical" period provides an accurate "baseline" for more recent time. It would also be helpful to the reader to define or offer some quantitative alternatives to the words "secure" and "depressed" when describing a species' status.

- Please briefly explain why range and agricultural lands tend to have lower integrity values as suggested in Chapter 2 text. Otherwise, the reader is left to conclude that more trees are better, which is not necessarily correct since lower elevation waters with higher temperatures, regardless of shading, can limit habitat use.

- Degraded aquatic habitat on Federal lands may not be the limiting factor, which, if improved, would allow threatened and endangered species to "stabilize and expand." There must be acknowledgment throughout this document of downstream potentially limiting factors (e.g., outmigration mortalities, harvest, escapement success) that can severely restrict upstream success, no matter how good habitat is on Forest Service and BLM lands. Please expend some effort in the text in managing the public's expectations, and avoid making promises that cannot be kept.

- The description of expected future conditions in riparian areas under Alternative 5, as achieved through the implementation of Fish 2000, inaccurately and negatively depicts conditions that would occur under this riparian management strategy. It also biases the reader against this alternative. This description should be revised to correctly portray expected future riparian conditions under Fish 2000. This misrepresentation raises other questions, such as are expected future conditions under the other alternatives accurately described? Do these other descriptions contain unintended biases not readily apparent to the lay reader that may affect project outcome? This kind of error needs to be avoided to maintain document credibility and the public's trust. By comparison, the description of Aquatic Species habitat fairly presents desired future conditions that can be achieved with the implementation of Fish 2000, which reflects the proper function of a healthy riparian community.

Landscape Ecology

- The Eastside Affected environment section is biased against human use of the landscape and effectively negates an important tenet of ecosystem management: the concomitant use of the landscape by both people and other organisms. Rather than providing an effective summary of existing conditions, the chapter becomes an indictment of the human race.
- While documenting historical range of variability was a critical concept to ecosystem management and the ICBEMP effort in general, little information is presented that attempts to place current conditions within this context. Thus, it is impossible to assess whether current conditions of resources are outside of a normal range that has historically existed in the ICRB.
- The UCRB effort, particularly with respect to the Affected Environment chapter, is substantially better than the Eastside effort. Authors of the Eastside document might want to review the style and tone of the UCRB document for guidance in how to proceed.
- Ecosystem integrity has emerged as a driving force in the preparation of the document and

the Objectives and Standards for the ICRB. Much more detail and information on ecosystem integrity needs to be supplied within the document to explain the approaches used and the rationale behind use of integrity as such a critical piece of the ecosystem management puzzle.

- A number of objectives and standards appear based on a minimum of solid, empirical evidence, notably objectives and standards based on movement corridors and species viability. Because of the potential for far-reaching, broad effects on management within the ICRB, these objectives and standards should be removed from consideration until a more solid body of evidence is prepared that supports their implementation.

Social and Economic

- After two years, the project has not yet developed a clear, unambiguous, set of project goals that provide a good understanding of what this project is trying to achieve. One has to read all of the individual objectives in Chapter 3 word by word to understand what the project is to achieve.

- Although the presentation of information on the Affected Environment (Chapter 2) in the UCRB DEIS is more understandable than in the Eastside EIS, there are still too many opinions and too few facts. Without more information, there is some question that the EIS may not survive an adequacy challenge.

- Payments to local government is an important issue to counties, yet there is only a brief one paragraph discussion in Chapter 2. No mention of payments to local governments is made in the Standards and Guidelines in Chapter 3.

- Many comments have been made about the likelihood of overestimation of the impact of recreation on Forest Service and BLM lands to the regional economy. Without more detail and explanation in the text, one can only continue to believe that recreation impacts are being treated differently than other economic impacts simply to promote recreation.

- In Chapter 2 it is stated that predictability of timber sale volumes is difficult to achieve. If the Forest Service and BLM work at improving forest health and develop meaningful risk reduction programs, predictability of timber sale volumes will follow. There was little if any attention paid to the subject of risk in the EIS. This is a management shortcoming that should be rectified.

- One of the criteria for defining timber dependent communities is high dependency on federal timber. There has been an attempt to reduce the number of communities classified as timber dependent by reapplying the criteria to today's situation when federal timber supplies are at a low and, by definition, fewer communities are able to get federal timber. Rather than attempting to eliminate communities, efforts should be made to truly identify local impacts, not mask them.

Terrestrial

- Terrestrial integrity, as presented in Chapter 2, has serious flaws as a concept for ecosystem management of terrestrial organisms in the ICRB. The concept of integrity should focus on multispecies analysis and the wholeness of the total terrestrial ecosystem of the Columbia Basin. Instead, the concept is defined in terms endangered species and hotspots of rare species, distorting the view of the health of all species making up the terrestrial community of the Basin.
- The assessment states that the terms "Key Ecological Functions" and "Key Environmental Correlates" are introduced to provide important descriptors to discuss terrestrial species and habitats. In reality, this technical jargon adds nothing to the description of terrestrial systems. Because neither of these terms is applied consistently or in any way to connote any significant ecological descriptor. "Key Environmental Correlates" should be replaced with important habitat component and replacing "Key Ecological Function" with ecological function or ecological role. Further, a disclosure of all correlates you considered would be helpful.
- The discussions within the various forest and rangeland habitat sections do not present a clear, holistic description of all major wildlife communities. The focus is still on endangered species. Other descriptions of species are anecdotal and inconsistent from section to section. One does not get the sense of what species groups are important for the functioning of the ecosystem and how important ecological species groups change from habitat to habitat.
- The O, S & Gs for wildlife and wildlife habitats are inconsistent and haphazardly applied to alternatives. The numbers of the O, S & Gs for Alternative 1 are different for the same numbers for the other alternatives. The result is the O, S & Gs are not comparable from alternative to alternative.
- The clustering of alternatives does not clearly show differences in terrestrial management emphases to compare how the clustering of alternatives relates to the various themes the alternatives are supposed to represent.

Chapter 1: Introduction

Background

Eastside. p. 3. Table 2-1 listing Forest Service and BLM Districts should be moved here to match the UCRB Chapter 1.

Eastside. p. 3. bullet at bottom of page. What is meant by the statement, "The EIS processes are consistent with the principles of the Framework."? The EIS should be based on the processes set forth in NEPA, which are regulatory in nature and describe a public disclosure process to aid decision makers in their review of a proposal. At present this does not appear to be the case. The Framework should be quite different in content and far narrower in scope. According to the Charter, its purpose was to address ecosystem management principles and their implementation. Please delete this statement.

Eastside, p. 4. first bullet. The author is again confused about the relationship between NEPA and this project. It is incorrect to state that, "Information generated in the Assessment was used as the basis for developing both EISs.". The basis for the EISs should be alternative management plans for federal lands in the Interior Basin, not information collected in the Assessment.

Purpose of and Need for Action

UCRB. p. 8. first bullet. This statement calls for emphasis of adaptive management strategies. At least one alternative, Alternative 7, is based on a reserve system where adaptive management would not be used.

UCRB. p. 8. Ecosystem Health. It would be helpful if some of the examples of ecosystem health dealt with social and economic topics so that the public would have a broader perspective of ecosystem management.

Eastside. p. 5. fourth bullet. This statement calls for emphasis of adaptive management strategies. At least one alternative, Alternative 7, is based on a reserve system where adaptive management would not be used.

Eastside. p. 5. Purpose. Given the scale of this project and the potential for no FEIS or ROD, it seems highly speculative to retain as a purpose the amendment of Forest Service and BLM management plans.

Eastside. p. 5. Purpose. Why should adaptive management be a purpose of this project? It simply is a tool and doesn't meet a stated project need.

Eastside. p. 5. Purpose. Identification of legal and institutional barriers to implementation is an important activity but not a purpose of the project.

Eastside. p. 5. Purpose. Add a purpose that aligns with the need to follow long term management directions (e.g., ecosystem management, PACFISH/Infish successors).

Eastside. p. 6-8. Need. Changed Conditions. Include some summary statistics to give perspective and relevance to the trends described.

Eastside. p. 6. para. 1. It would be helpful if some of the examples of ecosystem health dealt with social and economic topics so that the public would have a broader perspective of ecosystem management.

Eastside. p. 6. Need. The section on Need should be rewritten to be consistent with NEPA. For example, there is not a need to "identify" desired future conditions. That is a research function that does not require an action. What is the related action?

Eastside. p. 7. para. 4. What is meant by the statement, "Riparian habitats have stabilized on federal lands?"

Decisions to Be Made

UCRB. p. 14. The statement, "responsible officials can decide to: Modify an alternative (for example, combine parts of different alternatives), as long a the environmental consequences of the modified action have been analyzed with the Final EIS," creates great uncertainty for the potential outcome of this major planning effort. Additionally, this appears to create additional opportunities for legal gridlock. Please assure that this is consistent with existing NEPA regulations and does not create potential opportunities for misconstruing this major planning endeavor.

UCRB. p. 15. para. 5. The document states: "The alternatives in this Draft EIS include standards for rangeland health...These will be subject to consultation with affected Resource Advisory Councils" No where in this document do are there stated provisions for RAC consultation of forest or range issues pertaining to USFS lands. Does this imply that consultation with RAC's on forest issues will not be conducted?

UCRB. p. 16. Management Priorities, Protecting Ecosystems. This section contains subjective provisions for "Special care for fragile or rare ecosystem components." This raises many interesting questions, first who is to determine what "rare ecosystem components" are and where the exist. Secondly what is "special care"? This notion is very subjective and not definitive. We are unaware of any inventory of these components within the ICBEMP Assessment.

UCRB. p. 16. last para. In the list of various federal and state laws, The Organic Act and Multiple Use Sustained Yield Act are missing from the discussion. Were inclusion of these acts omitted?

UCRB. p. 16. last para. Second to last sentence. Mention of "special resource" considerations are mentioned. What are these? We are not aware of any inventory or analysis that identifies "special resources." This needs to be more definitive.

UCRB. p. 16 last para. Last sentence. Mention is made that "no single value will be achieved at its maximum level, except where opportunities are very limited or in cases of rare and sensitive species or habitat conditions" Will the plan disclose these conditions or will this be open to wide interpretation.

Eastside. p. 10. Consultation with Regulatory Agencies. This project cannot dismiss site specific "on-the-ground impacts" as the disclaimer states. Many of the impacts of this project, especially those pertaining to riparian management are very site specific in nature and will need to be addressed accordingly. The fact that the authors would like to maintain analysis at a regional level is not relevant when riparian buffer delineations that can be identified on the ground are part of the decisions to be facilitated by this EIS.

Relationships to Laws, Policies, and Other Plans

Eastside. p. 14. Planning Criteria. The planning action should be based on all relevant data, not just peer reviewed scientific articles.

Public Participation

Eastside. p. 16. last para. Hasn't an MOU had been signed that identified the Eastside Coalition of Counties as cooperating agencies under NEPA?. If this is the case, it should be stated.

Chapter 2: Affected Environment

General

Overall, the material presented in Chapter 2, which is intended to be a description of the Affected Environment in the study area, is an inconsistent mix of facts, ideas, and opinions that does not provide the reader (or decision maker) with adequate information. Chapter 2, should contain information on existing conditions so that the reader will have a basis for understanding the context and effects of the alternatives presented in Chapter 4, Impacts.

Introduction

Eastside. p. 1. Chapter 2 should focus on correlates of ecosystem health and integrity and economic and social support as described in the Needs section of Chapter 1. Focusing on public and agency concerns may not fully relate to stated needs.

Eastside. p. 1. Exclusion of improving conditions and trends cannot be justified (especially because of scale). They are just as relevant to management activities as declining trends.

Eastside. p. 3. Ecological Reporting Units. It appears that none of the material used to formulate alternatives in Chapter 3 is based on the use of ERUs. Since this is the case, ERUs should not be used as the analysis in Chapter 2 so that comparisons of current to future conditions can be understood by the reader.

Eastside. pp. 4-7. Humans and Land Management: Snapshots in Time. Much of this discussion can be deleted, since it is unlikely to play any role in the impact analysis.

Physical Environment

UCRB. p. 3. Ecological Reporting Units. It appears that none of the material used to formulate alternatives in Chapter 3 is based on the use of ERU's. Since this is the case, ERU's should not be used as the analysis in Chapter 2 so that comparisons of current to future conditions can be understood by the reader.

UCRB. p. 4. Soils and Soil Productivity. In the Summary of conditions and trends, the list does not include the adverse effects of uncharacteristic fire on soil productivity. This is discussed in detail on pg. 6, it would be appropriate to incorporate these effects in the summary section.

Eastside. p. 13. Soils and Soil Productivity. In the Summary of conditions and trends, the list does not include the adverse effects of uncharacteristic fire on soil productivity. This is discussed in detail on pg. 15, it would be appropriate to incorporate these effects in the summary section.

Eastside. p. 20. para. 5. Air Quality. The author seems to have missed the point here. It is essentially stated that ozone emissions are acceptable because they come from wildfires, which are natural. There is nothing natural about the volume of fuels that have unnaturally accumulated through decades of fire suppression. We have been experiencing an unprecedented trend in increasing fire occurrence and ozone generation. Using the author's logic, wildlife population declines, for example, are O.K. because wildlife mortality is a natural phenomenon. On the contrary, we should be managing fire frequency to control ozone generation within acceptable levels.

Terrestrial Ecosystems

General

The Affected Environment description of the UCRB EIS is substantially advanced in style and content when compared to the Eastside EIS. It shows balance and recognizes the range of sources of effects to the ICRB that is noticeably absent from the Eastside effort. It is a much improved assessment of the condition of forest and range resources and is more an assessment than an indictment.

Concept of Terrestrial Integrity. Terrestrial integrity, as presented in Chapter 2, has serious flaws as a concept for ecosystem management of terrestrial organisms in the ICRB. The three concepts for defining terrestrial integrity include species viability, evolutionary potential, ecological scales-evolutionary time frames. As presented, these concepts are based on single, legally-designated species, rare endemics, and fringe populations. There is no attempt to define vegetation or wildlife in terms of vegetation or wildlife communities, species or community densities, species or community diversities, species or community biomass, abundances, or any other ecological concept that characterizes animal components of a system as a whole.

In this report, species viability, for example, focuses only on those species "that are commonly thought to have viability concerns," i.e., the threatened or endangered species. There is no treatment of species viability from a system analysis perspective and, therefore, no analysis or perspective of the health of the total system. While the authors note that they are only concentrating on the species in trouble, they should make it clear that an objective reader will only be exposed to a small part of the total ecosystem picture and should not expect to gain an understanding of the status of plant and wildlife integrity for the ecosystems of the Interior Columbia River Basin. If the USFS and BLM must only deal with the threatened and endangered species because they are legally required to do so, they should label their analysis as such and not suggest that the few species they are required to address represent ecosystem-level analysis of terrestrial systems.

The concept of evolutionary potential, as defined here, again focuses on rare species and those with very narrow spatial distributions (endemic species). While concentrations of these species are important and vulnerable from an evolutionary point of view and should be protected, one cannot assume that these species are indicative or representative of the state ecosystem health. This is particularly true in this treatment of integrity, which avoids any mention of the thousands of plants and wildlife species on the millions of acres within the Interior Columbia River Basin. These are the species that represent the trophic biomass that drives the food chains and nutrient cycles of the whole ecosystem.

The concept of ecological scales/evolutionary time frames, the third component of terrestrial integrity, focuses on fringe populations of a species on the edge of species' geographic distributions. Again this is an interesting evolutionary concept, but is a minor consideration for ecosystem management. Fringe populations by definition are located at the limits of the species' tolerances for any number of physiological, behavioral, ecological, and other parameters. These populations are theoretically the most stressed, the most subject random catastrophic events, and most likely have lower population densities and higher mortalities than populations from the geographic and biological centers of the species range. It should be obvious that the focus of a large-scale analysis of ecosystem management should consider status of species populations from the center of their ranges where they have evolved, where they are most adapted to existing conditions, and where population surpluses provide the genetic source materials for dispersal to fringe areas. To focus on the fringes and to ignore the population centers is "penny-wise and pound-foolish," ecologically speaking. As with "species viability" and "evolutionary potential," this concept emphasizes the exception and the special case. Consequently, the concept of terrestrial integrity in this draft does not represent overall measurements of ecosystems. These concepts measure, in fact, the reciprocal of ecosystem integrity and are biased against parameters that measure systems as a whole entity.

Integrity. Integrity of landscapes appears to be a driving force in the management decisions that will affect the ICRB. As a result, the integrity section deserves additional detail with respect to the concepts of integrity and their use in the decision making process. How has integrity been derived as a credible approach to the assessment of landscapes? What scientific inquiry has been made with respect to the objectivity of the integrity concept? What measures have been used that support objective assessment of integrity?

Perhaps the most troubling aspect of integrity is its implication that once people interact with their landscape, integrity decreases. This implies that people and landscapes do not mix and that the purpose and need of restoring integrity is to ultimately remove people from the landscape. Definitions of integrity to date have been unsatisfying with respect to their objectivity. "A sense of wholeness" does not impart confidence that objective measures will be used to evaluate the condition of ICRB resources. To date, integrity has not adequately included people as part of "wholeness," but only implies that the presence of people has degraded the ecology of the landscape. In effect, it has been used to further isolate people from the landscape. But the root of the word "integrity" is "integrate." Instead of integrating people and landscapes, it appears a potential end result of this project will be to carve up the landscape into "clusters" including isolated forest regions and reserves with high "integrity." The irony of this action is that it will not integrate, but will further isolate people from the landscapes upon which they depend.

The project charter calls for a scientific evaluation of ecosystem management alternatives. If the ICBEMP is to evaluate ecosystem management, defined as the intersection between social, ecological, and economic needs of the basin, then it must do so with measures that integrate the needs of all three. The future of ecosystem management lies in the ability of people and their landscapes to meaningfully integrate with a minimum of impact to either of them. It is feared that the term integrity will be used in place of rigorous scientific inquiry to support decisions and, in doing so, lead to flawed judgments to the detriment of both ecosystems and people.

Vegetation and Wildlife Classifications. The assessment states these represent hierarchical classifications of species and supposedly are introduced to provide important descriptors to discuss terrestrial species and habitats. In reality, these terms are not used in any hierarchical sense in the discussion of the affected terrestrial environment and, more importantly, add nothing to the description of terrestrial systems. Neither of these terms is applied consistently or in any methodical way to connote significant ecological descriptors. As applied in Chapter 2, they are simply technical terms that muddle the discussion. It is suggested that replacing "Key Environmental Correlates" with either habitat component or important habitat component, depending on the intent. Since there is no discussion of significance or implied distinction between "Key Ecological Function" and the normal functions that each species and each individual maintains as part of its ecological existence, it is suggested that replacing "Key Ecological Function" with ecological function or ecological role depending on the use.

Terrestrial Species. The discussions of terrestrial species throughout the rangeland and forest vegetation sections has failed to present an assessment of terrestrial animal communities in the context of a holistic ecosystem. The presentations are focused on single species and amount to qualitative, anecdotal, and seemingly random discussions of various species from section to section. There is no attempt to systematically discuss species groups is each section in order for the reader can understand how species composition, abundance, and ecological importance changes or does not change from habitat to habitat across the Basin. The terrestrial species presentation continues to emphasize the threatened and endangered components to the point of excluding any analysis of terrestrial species in general; consequently, the reader has absolutely no clue as to what the status, distribution, function, or significance of the large majority of species that result in the living Columbia Basin ecosystem. The type of analysis presented here is the standard single-species approach seen for years in EISs and does not embody any of the paradigm shifts anticipated in a presentation incorporating the principles of ecosystem.

Forestlands

General. The Chapter 2 Forestlands section appears biased against human use of the landscape. This section reads as much like an impact assessment as a description of the environment for which alternatives are proposed.

Much of the ecosystem management paradigm is based on concepts of dynamic landscapes and the subsequent recognition that changes to resources must be couched within the context of a range of variability associated with the change. Without this context, one cannot make an objective assessment with respect to the positive or negative influences of the change. The Eastside Chapter 2 goes into great detail with respect to changes in habitat that have occurred from historical periods to the present with almost all of the discussion implying changes to the detriment of the specific organism. Yet few, if any, statements attempt to place the changes wrought by humans into a dynamic context with respect to their relationship to historical variability. Is one to assume that the effects on specific wildlife species mentioned in the document are all outside the range of historical variability for the species? If so, an appropriate level of documentation to support the statements is needed. If the ICBEMP does not know whether this is true or not, is it appropriate to discuss them?

The Forestlands section puts great emphasis on the impacts of human management on the actual forestland ecosystem without placing these conditions within the historical range of variability to assess the cumulative effects of different activities. As a result, it may be impossible to produce an objective assessment of impacts from future management on the landscape. For example, it is stated that timber harvesting has resulted in more early seral patches than historically existed. Similarly, fire suppression has resulted in fewer early seral patches than historically existed, albeit with different species compositions. What *offsetting* effects could each phenomenon have had on landscape integrity (if any)? This is a critical question to ecosystem management since its answer will help us understand how, or if, human influences could mimic historically occurring natural characteristics of the landscape, thereby allowing human use with a minimum of impact to other organisms dependent upon the resource. Yet, Chapter 2 is silent in this regard. Why?

UCRB. p. 2. Summary of Conditions and Trends. It would be appropriate to incorporate the findings contained on pages 14-18, "Current Conditions and trends: Departures...," which characterize the current conditions of Dry Forests in terms of fuel loads, densities, and species composition relative to fire, disease, and insect susceptibilities. Similar findings are noted for the Moist Forest types.

Eastside. p. 24, para. 5. Listing of Threatened (4 species) and Endangered (3 species) species does not correspond with numbers of listed species on Table 2-39.

UCRB/Eastside. pp. 24-25. Terrestrial Integrity is subjective and scientifically unmeasurable as presented here. See General comments.

Eastside. p. 26. para. 6. Wildlife Classifications. Two hierarchical classifications for wildlife are mentioned. How are they hierarchical since they are not used in that way in this assessment? It may be best to delete as they serve no purpose here.

Eastside. p. 27. para 2. It is disagreed that it is "undesirable and unrealistic" and "unwise" to apply species habitat relationship needs basin-wide. A major fault of this analysis, as stated before, is the selective presentation of species with unique requirements or species with viability problems. This single-species approach, perpetuated here, is part of the reason resource management in the Columbia River Basin has failed in the past. There is no analysis of the total effects of the project on terrestrial components and species of the Columbia River Basin. To focus on problem areas may make the writers' job easier, but the project should be forthright enough to admit that this is not a holistic scientific analysis of the ecosystems of the Columbia River Basin, which the project was chartered to perform.

Eastside. p. 28. para. 1. "Many species of fungi (mycorrhizae) also play a role in facilitating...." Mycorrhizae describe the symbiotic relationship between the fungus and the plant root (in fact, mycorrhizae means "fungus-root"). A given species of fungus, although it may be able to enter into a mycorrhizal association, should not be referred to independently as "mycorrhizae." This statement implies this and it is recommended that "(mycorrhizae)" be moved to the end of the sentence.

Eastside. p. 28. para. 3. "Lichens also appear to be...for most lichens." This statement needs to be supported with references. As it stands, this statement reflects bias. Lichens do not differentiate between trees that have been naturally versus artificially regenerated. It may be that lichen populations are responding to the environment created within an overly dense stand, irrespective of whether that stand was placed on the landscape by humans. In fact, many overly dense stands in the Columbia River Basin owe their existence to fire suppression and not overly dense replanting efforts.

UCRB/Eastside. pp. 29-30. Natural Areas. This section is over-emphasized if not inappropriate for this section. Natural areas should be presented in the context of set-aside areas (reserves) and that reserves are one tool for the implementation of ecosystem management, not, as implied here, the ONLY way to maintain ecosystem components, processes, and functions. Editorially, this section needs a point; it rambles and should be revised with some main topic in mind. Percentages are unclear and need to explain succinctly what they represent.

Eastside. p. 31. Forestlands. Summary of Conditions and Trends. It would be appropriate to incorporate the findings contained on pages 41-43, "Current Conditions and trends: Departures…," which characterize the current conditions of Dry Forests in terms of fuel loads, densities, and species composition relative to fire, disease, and insect susceptibilities. Similar findings are noted for the Moist Forest types.

Eastside. p. 33. para. 1. "Disturbances in the native....bark beetles)." This statement is somewhat misleading. The statement that disturbances follow "cycles" of intensity implies that most sites experience a range of low intensity and high intensity events. There is an important elevational/climatic caveat to this statement since frequency of impact, particularly from fire, can follow a moisture/temperature gradient as one moves higher in elevation. In other words, low elevation forests tend to burn more frequently at lower intensities and moving upslope, forested ecosystems burn less frequently, but with higher intensity when fire occurs. At midslope positions, a mosaic of high and low intensity/size fire events is most common. While the statement is referred to as "general," it is recommended that it be introduced with a caveat about the complexity of disturbance events or other caveat to properly buffer its impact.

Eastside. p. 33. Last para. "New disturbances...animal species adapted to." It is recommended that the phrase "in some cases" be placed within this sentence (i.e., "...or exclusion, have, in some cases created conditions..."). This change would place this sentence more in agreement with the data presented in Table 2-49, where, half of the time, current conditions fall within the historical range of variability. As it stands, the sentence implies a level of change throughout the Eastside that is outside the historical range of variability.

Eastside. p. 34. para. 4. The seven important "Key Ecological Functions" listed here are not applied uniformly or consistently throughout this Chapter. For why purpose are they presented here? Why are they assumed "Key?"

Eastside. p. 34. para. 4. The importance of the "Key Environmental Correlates" and the application of concept is unclear. Also, the list of ten important correlates does not represent uniform categories. The first eight are general habitat components, the ninth (fire processes and insects outbreaks) includes potential disturbance processes, and the tenth (recreation activity, roads) involves subjective human activities. A heterogeneous grouping such as this should serve some purpose, otherwise there are less muddled ways to present this material, if it is necessary to do so.

UCRB/Eastside. pp. 34-35. Large Carnivores and Omnivores. This section, even with its references, is loaded with value-laden, unsubstantiated, inappropriate statements. For example, to state categorically that fishers and marten are indicators of total biodiversity and ecosystem health is biased and irresponsible. This implies the narrow, preservationist, bioreserve concept of biodiversity and ecosystem health that was so pervasive in earlier drafts.

Eastside. p. 46. para. 4. "Historical accounts are...economic benefits." This paragraph sends mixed and biased messages. It leads with a statement that elk and deer populations are likely higher than prior to European settlement and concludes that "potential decline" in habitat "may mean fewer animals available in the near future." First, it is difficult to see how a short term projection (fewer animals) can be made based on *potential* losses and *potentially not sustainable* cover. It strikes the reader that such short term projections need to be based on more solid ground. Second, the paragraph also begs the question of whether a reduction of elk and deer populations would produce a more historically accurate landscape or not.

Eastside. p. 47-50. Composition and Structure, Historical, and Current Conditions & Trends. The sections appear highly biased. The sections exhaustively discuss the changes that have occurred within these landscapes and clearly attempts to support a position that the landscape is in serious trouble because of human interference with natural processes. Yet, the data presented in Table 2-49 comparing the historical range of variability for forest structures with current conditions shows that all moist PVG structures fall within a range consistent with historical conditions. Interestingly enough, the old forest single stratum current values fall in the *upper* portions of the range! This information is noticeably omitted from the discussion. The EIS must show more balance if the public is to accept the information provided within it as an accurate and unbiased portrayal of scientific inquiry.

Eastside. p. 54. para. 4. "Consequently, future forests...did historically." This line presupposes a passive management alternative. If fire is reintroduced to these systems, won't larch-related habitat potentially improve in the future?

Eastside: pp 36-37. Federally Listed Threatened, Endangered, and Candidate Species This section must be updated to reflect the recent Review of Plant and Animal Taxa That Are Candidates for Listing as Endangered or Threatened Species (61 FR 7596, 28 February 1996) which has revised the concept of candidate species. Also, the seemingly arbitrary discussion of selected candidate species (e.g., the spotted frog in the Eastside EIS) should be rewritten to present a more systematic discussion of candidates as they related to Basin wide policy and planning. Table 2-39 needs to be reviewed and updated to correspondence to the FR Review and the data in the text.

Eastside: p. 37, para. 1. The final sentence, suggesting that undescribed species might have vanished before they could have been studied, should be deleted because it offers no information to explain existing conditions of the effected environment.

Eastside: p. 37, para. 2. The significance on marbled murrelet for the Eastside EIS may be over emphasized, particularly in light of the many ecologically important species not mentioned in this analysis. The Zone 2 "habitat" that happens to fall on the eastside of the Cascade Crest is minor and may be an artifact of the selection criteria. One would assume it is unlikely that a marbled murrelet would fly over the crest of the Cascade Mountains on a daily basis to the ocean and return to feed young.

Eastside: p. 43, para. 3. The explanation that species adapted to disturbance in dry forest habitats by shifting within the environment and using a mosaic of habitats is partially correct. Populations of species in heterogeneous, variable environments (i.e., including environments subject to disturbances) tend to be more adaptable to environmental fluctuations that similar species in less variable environments. This plasticity in response to environmental change can be a significant factor in determining species distributions and potential for occurrence in the Columbia Basin.

Eastside: p. 44, para. 6. Several hypothetical statements in this paragraph are stated as fact, e.g., "Some animals. . . that travel are more vulnerable to predators, traffic, and other hazards". Also, to state that the Columbia Gorge provides examples of barriers because of highways, railroads, and a waterway transportation system is biased; obviously, the most significant barrier is the Columbia River itself.

Eastside: p. 45, para. 2 and 3. The intent of these paragraphs seems to be to illustrate that all human interactions with the environment are evil. Obviously, there have been environmental changes in the forests and rangelands with the coming of European settlers. It would be better for the reader if a balanced presentation of the magnitude of changes were discussed from an ecosystem point of view.

Aquatic Ecosystems

Note: Because of the similarity of the UCRB and Eastside EIS texts, the comments below also apply to appropriate sections of the Eastside Chapter 2.

UCRB. General Comment. Except as noted below, the Chapter 2 treatment of fish is well written, concise, and provides the reader a broad feel for key fisheries resources in the project area.

UCRB. p. 20. Summary of Conditions and Trends. In the first arrow, please define the time frame associated with the word "historically."

UCRB. p. 21, para. 1. Give examples of other large river basins with greater species richness.

UCRB. p. 21. para. 4. Unlike the government-listed species, those recognized by the American Fisheries Society have no associated force of law status. Please note this distinction in the text.

UCRB. p. 21. para. 4. Chinook salmon in the UCRB are endangered, as noted on p.32, first full paragraph. Also, please define meaning of "Category 1."

UCRB. p. 21. para. 6. Modify last two words on page to read "causing accelerated eutrophication." This acknowledges eutrophication occurs naturally.

UCRB. p. 22. para. 3. All rainbow trout, not just hatchery rainbow trout, are introduced in the project area. Please clarify.

UCRB. p. 22. para. 3. The last sentence is too general and misleading. Introduced species tend to be well-adapted to "project area" altered conditions. Also, they are well-adapted to naturally-occurring conditions that meet their habitat requirements.

UCRB. p. 22. para. 6. Under the heading Salmonids in the first sentence, it is debatable whether salmon more than any other resource have helped define the Pacific NW. What about timber? Reconsider wording, please.

UCRB. p. 22. para. 6. Please clarify in the last sentence, did sockeye and steelhead catches peak in 1895, also?

UCRB. p. 23. para. 1. Please clarify or reword what is meant by "the migratory pressures exerted on anadromous fish by hydropower operations." It is hard to believe this says what the author intended.

UCRB. p. 23. para. 1. In the next to last line, please clarify whether harvest effects are a part of the "broad changes in aquatic conditions" that have been associated with population declines. It is often difficult to separate harvest vs. habitat related effects.

UCRB. p. 23. para. 2. Please define the time-frame for determining a local population's "historical size or density." Were data good enough in study area watersheds during the "historical" period to accurately know "baseline" size and density for comparison to later years? Also, please explain the rationale for selecting 500 adults or 5,000 individuals as indicative of a "strong" watershed. Would a density parameter be a better measure, thereby correcting for differences in size of watershed?

UCRB. p. 23. para. 3. In the first sentence, is this 60 percent of the lower 48, western U.S., western North America, etc.? Please clarify.

UCRB. p. 25. para. 1. Caution is urged in making easy statements such as "environmental relationships are likely to be more apparent" when it is often extremely difficult to identify the major cause-effect relationship among a host of possible cause-effect relationships.

UCRB. p. 26. para. 2. Generally, it would strengthen the text if citations were occasionally offered even though the reader is directed to study reports at the outset.

UCRB. p. 27. para. 1. Please clarify in 3rd sentence that Yellowstone cutthroat trout extirpation has occurred in some, not all, drainages.

UCRB. p. 27. para. 4. Please define "Category 2" if not contained in glossary.

UCRB. p. 27. last full para. In the 3rd sentence, does this statement regarding cutthroat occurrence refer to the past or present?

UCRB. p. 28. 1st partial para. Please define or offer some quantitative alternatives to the words "secure" and "depressed" in describing westslope cutthroat trout status. The same comment applies to other "secure" or "depressed" fish species.

UCRB. p. 29. It would probably provide some additional perspective on redband trout to note in this discussion that they are very hardy and tolerant of low flows and relatively high temperatures.

UCRB. p. 29. para. 4. In referring to 72 percent of their "historical range," does this really mean where redband trout are anticipated to have occurred or are there good "historical" distribution data? Please clarify.

UCRB. p. 31. para. 3. Please explain the actual mechanism/cause of mortality associated with low flow (i.e., temperature, predation, etc.).

UCRB. p. 33. para. 1. In the last and next to last sentences, please clarify whether you are referring to adult escapement.

UCRB. p. 33. para. 4. In the last sentence, it would be helpful to the lay reader, as well as the non-lay reader, to briefly explain the values of refugia, connectivity, and the relevance of each to population success.

UCRB. p. 35. para. 4. Following the last sentence, please briefly explain why range and agricultural lands tend to have lower integrity values. Otherwise, the reader is left to conclude that more trees are better, which is not necessarily correct since lower elevation waters with higher temperatures, regardless of shading, can limit habitat use.

UCRB. p. 37. para. 2. In the last sentence, please offer examples of the kinds of "experimentation" that would be conducted.

UCRB. p. 38. What kind of "contribution" from Federal management agencies on non-Federal lands is anticipated and is this practical given land-ownership differences?

Human Uses and Values

UCRB. p. 1. second bullet. "At the regional level the increased contribution of recreation-related uses of federal lands has the largest impact." What does this mean? The remainder of the bullets in this section seem to be more of a preliminary impact analysis rather than a summary of current conditions.

UCRB. p. 4. para. 3. The intent of the last sentence is unclear. "The local emphasis of Forest Service and BLM people-oriented policy suggests that social rather than economic policy is the appropriate context for decisions affecting human uses of agency lands." In an ecosystem management framework, ecological, economic, and social factors should be considered concurrently.

UCRB. p. 4. para. 4. By not acknowledging spatial and economic hierarchies of central places, the author has ignored a large body of literature in regional economics needed to undertake an adequate analysis of economic activity in the region. It is inappropriate to use ERU's as a unit for economic analysis when ERU's are not used as a spatial component of alternatives.

UCRB. p. 4. para. 5. Before deciding to avoid estimating of economic impacts at a fine scale (communities), it would be interesting to know what approaches the authors tested and subsequently rejected.

UCRB. p. 4. para. 6. Reference is made to projecting future economic effects of alternative land uses. It is our understanding that the impacts of alternative ecosystem management plans, not land uses, are to be addressed in this EIS. The concern here is that the analytical scope of the authors will be too narrow.

UCRB. p. 7. para. 3. It is unclear what the authors did here to collapse the number of ROS categories and why combinations were made. What was the data base used to develop all of the information presented here? It should be acknowledged that attendance data is often of very poor quality. Including motorized access in a group with primitive activities does not seem logical, especially since one of the issues that keeps arising is whether roads should be increased or decreased. It is our understanding that the road data is based on a relatively small sample. What is the level of error in using that information to generate ROS that have a number of different road-related categories?

UCRB. p. 7. para. 4. Without information on recreation opportunities being presented, it is difficult to tell to what degree the author is editorializing about "wildland-based recreation opportunities."

UCRB. p. 8. para. 1. It is stated that "Activities such as trail use occur mainly in primitive/semi-primitive areas..." Without a definition of "semi-primitive," one would speculate that this statement is not true. More information on where use takes place is needed. How much activity is within one mile from a road, two miles from a road, three miles from a road, etc. Without better information, it will not be possible to make valid statements in the impact analysis.

UCRB. p. 8. para. 2. Contrary to the findings regarding "wildlife activities," which indicate that wildlife activities are more important than hunting and fishing, Table 2-10 shows that hunting and fishing are more than four times as important as viewing wildlife. What conclusion is to be drawn here? Overall, the recreation section is lacking in information that will be useful to the reader in understanding the alternatives or drawing conclusions about impacts. The subsequent photo caption concerning growth of trail use contains no citation. What is the basis for making statements about demand for various types of recreation?

UCRB. p. 9. Scenery and Scenic Integrity. This section should be deleted from the DEIS unless the authors are willing to conduct an exhaustive, site specific analysis. Not only is the topic site specific, its interpretation is arbitrary and subject to the values of individuals.

UCRB. p. 9. Issues in Recreation Supply and Management. The purpose of this section is unclear and the discussion is very incomplete. Certainly, there are financial concerns about being able to maintain recreation opportunities. If this section is to be kept, it should be broadened to include other relevant issues such as recreation demand, intensive development of federal lands for recreation (e.g., ski areas and destination resorts), long term leasing, integration of recreation with other uses to optimize a range of activities over time, trends in public/private partnerships, and the degree to which communities and counties are currently affected by recreation on federal lands. Note that the discussion of scenic integrity following recreation issues is out of place.

UCRB. p. 10. Cultural Resources. Mention of human occupancy of the region 12,000 years ago is not very relevant without more detail. If any analysis of cultural resources is to be included in the DEIS, there should be an appropriate level of detail on current conditions in Chapter 2.

UCRB. p. 12. para. 1. It is not appropriate to discuss future declines in regional timber harvest in this section, since it correctly belongs in Chapter 4 on impacts. It could be assumed that in trying to develop a sound ecosystem management plan that could supersede the RPA, timber harvest could potentially increase.

UCRB. p. 14. Utility Corridors. What is the purpose of this section? Unless utility corridors are going to be evaluated in the alternatives, the section should be deleted. If it is to be retained, then the discussion provides an inadequate coverage of the topic.

UCRB. p. 15. Road System. It is assumed that impacts to the road system are to be addressed in Chapter 4, Impacts. If that is the case, there is insufficient information on current conditions presented here to be of any value in creating a good understanding of the system or in preparing an impact assessment. There is no analysis of the current road system in terms of connectivity, capacity, accessibility, or anticipated demands. Are there road system policy issues? If so, what are they? Without more information, the DEIS will be inadequate with respect to any decisions proposed with respect to road systems.

UCRB. p. 17. para. 3. In comparing existence values as indirect benefits with the value of resource uses, it would appear that the authors are only considering the direct monetary value of resource use without considering either indirect monetary benefits or values placed on having jobs, quality of life, or feeling of well-being resulting from economic security. If the authors are to conduct contingent value types of studies as part of this project, they should be unbiased and look at all value relationships.

UCRB. p. 17. Payments to Local Government. It is assumed that impacts affecting payments to local governments will be addressed in Chapter 4, Impacts. If that is the case, there is insufficient information on current conditions presented here to be of any value in understanding baseline conditions.

UCRB. p. 19. Employment Associated with Forest Service- and BLM-administered Lands. It appears that the employment data on recreation is incorrect and presented in such a way that recreation employment is overstated and employment in the timber and forest products industries are understated. It would appear that the analysis has applied some coefficient to the number of visitor days to derive direct and indirect employment impacts and only considered direct employment in timber harvest.

It may be that the project analyst has unwittingly assigned full-time employment to individuals who are employed part-time. Additionally, a significant proportion of travel assigned to tourism and, subsequently recreation, is in fact business travel. The tourism industry is notorious for mixing trip purposes to improve statistics. Further errors may be made by assigning all of the employment of a multipurpose trip to recreation on federal lands (e.g., a trip to visit relatives that may include a side trip to a national forest). Finally, many expenditures for individuals living in the region that may incidentally recreate may have been fully assigned to recreation. For example, assigning employment associated with car repair may be valid in only a few situations. This is not to say that recreation is unimportant, it is overstated and timber employment is understated apparently reflecting a personal bias of the authors.

UCRB. p. 21. para. 5. Wages in the timber and forest products industry are considerably higher than in activities such as recreation. In data for the Blue Mountains and Northcentral Idaho, for example, earnings for workers in the forest products industry were two to four times higher than for those in recreation. The 1996 report on Northcentral Idaho by Robison and others provides a good example of the impact of the two industries on the local economy.

UCRB. p. 25. para. 4 and 5. Since the 1987 timber dependency study, the volume of federal timber available to communities has decreased significantly. As a result, the number of communities, according to the Forest Service methodology, decreased also. To decrease federal timber supplies and then state that communities are no longer, by definition, timber dependent is an unacceptable analytical approach. In order to provide a reasonable analysis of impacts, all of the communities identified in 1987 should still be considered timber dependent unless there is some compelling reason, not stated in the discussion, for excluding them.

UCRB. p. 26. para. 1. The text states that predictability of timber sale volumes is difficult to achieve. In fact, there are many things that can be done to improve predictability that range from increased management efforts to enhance forest health, reduction of risk of catastrophic events, and a firm agency commitment to provide timber sales that are relevant to ASQs.

UCRB. p. 26. para. 3. The authors note that the predictability of local communities receiving jobs as a result of timber sales is questionable. A significant part of the issue of timber sales benefiting local economies has to do with the availability of timber supplies. As timber sales have decreased, mills have had to go farther and farther from their more traditional supply areas for timber. If federal timber supplies were increased and more predictable, there would be a much greater tendency for timber sales to benefit local communities.

UCRB. p. 27. para. 1. In this overview paragraph, the Forest Service and BLM seem to absolve themselves of any responsibility for community economic stability. The discussion on page 136, which refers to responsibilities under the National Forest Management Act and the National Forest-Dependent Rural Communities Economic Diversification Act directly contradicts the overview. Please correct the overview.

UCRB. p. 28. para. 5. The text notes that "federal managers have been unable to deliver an even-flow of timber because of the need to manage for other uses..." One of the purposes of ecosystem management is to overcome this inability by developing a planning process that considers and provides for ecological, economic, and social needs concurrently. Inclusion of statements about the reason that the Forest Service and BLM are adopting an ecosystem management approach would be useful for the public and other agencies.

UCRB. p. 29. para. 3. Mention is made of the use of population growth as a proxy for economic growth. This is a questionable approach for a number of reasons. As the authors have pointed out, some areas have apparently had large population increases as a result of in-migration of retired individuals. In other areas, population growth has occurred as workers have chosen to commute longer and longer distances. Neither type of population growth is a good indicator of economic diversity or resiliency. The analysts would be better served to use economic data, such as employment by economic sector and sector composition to assess economic conditions. Saying that population growth is assumed to represent economic growth does not make it so.

UCRB. p. 29. para. 4. The discussion of large populations and economic diversity contains much debatable information and too many generalizations to provide adequate information for the DEIS. For example, whether population or employment opportunities are lead or lag factors are arguable and depend on many different factors. Stating that "larger economies" have less leakages is meaningless without defining the term. A "large" economy (many jobs) totally dependent on a single activity can be expected to require many goods and services produced outside the area. To say that it is unlikely that land use decisions (or other components of an ecosystem management plan?) of the Forest Service or BLM will substantially affect larger populations or diverse economies is questionable without more information.

UCRB. p. 29. para. 5. The authors note that communities need to be isolated to be considered timber dependent. There are many cases where community infrastructure is focused on the forest products industry such that change to other activities would be difficult and highly disruptive. To be consistent with NEPA and address all reasonable impacts, the analysis should identify these communities also.

UCRB. p. 30. para. 3. The authors conclude that by combining individual areas with low economic resiliency into regions, suddenly high resiliency can be achieved. This is neither true nor meaningful. Care should be taken in concluding that BEA trade regions are functional. BEA's aggregations may be useful in many higher population density areas and merely statistical artifacts in the Columbia River Basin.

UCRB. p. 31. last para. The material regarding natural environment, scenic beauty, and recreation cited here merely represents one author's opinion and should either be deleted or the discussion should be broadened to include more perspectives on topics of importance to the region.

UCRB. pp. 33-34. Attitudes, Beliefs, and Values. This section presents only one point of view; that of an increasing awareness of environmental issues. It does not consider other important attitudinal issues such as how people feel about community growth or stagnation, employment versus unemployment, and many other topics that are equally important to the development of an objective ecosystem management plan. Please add information on these topics.

Eastside. p. 114. second bullet. "At the regional level the increased contribution of recreation-related uses of federal lands has the largest impact." What does this mean? The remainder of the bullets in this section seem to be more of a preliminary impact analysis rather than a summary of current conditions.

Eastside. p. 115. para. 4. The intent of the last sentence is unclear. "The local emphasis of Forest Service and BLM people-oriented policy suggests that social rather than economic policy is the appropriate context for decisions affecting human uses of agency lands." In an ecosystem management framework, ecological, economic, and social factors should be considered concurrently.

Eastside. p. 115. para. 5. By not acknowledging spatial and economic hierarchies of central places, the author has ignored a large body of literature in regional economics needed to undertake an adequate analysis of economic activity in the region. It is inappropriate to use ERUs as a unit for economic analysis when ERUs are not used as a spatial component of alternatives.

Eastside. p. 116. para. 1. Before deciding to avoid estimating of economic impacts at a fine scale (communities), it would be interesting to know what approaches the authors tested and subsequently rejected.

Eastside. p. 116. para. 2. Reference is made to projecting future economic effects of alternative land uses. It is believed that the impacts of alternative ecosystem management plans, not land uses, are to be addressed in this EIS. The concern here is that the analytical scope of the authors will be too narrow.

Eastside. p. 118. para. 4. It would be helpful to see some of the recreation use information in detail. Statements such as, "The BLM and Forest Service provide more than 90 percent...in almost every ecological reporting unit" provides very little useable information and does not give a clear picture of the most popular facilities and activities in the region.

Eastside. p. 118. para. 5. It is unclear what the authors did here to collapse the number of ROS categories and why combinations were made. What was the data base used to develop all of the information presented here? It should be acknowledged that attendance data is often of very poor quality. Including motorized access in a group with primitive activities does not seem logical, especially since one of the issues that keeps arising is whether roads should be increased or decreased. It is our understanding that the road data is based on a relatively small sample. What is the level of error in using that information to generate ROS that have a number of different road-related categories?

Eastside. p. 119. para. 2. Without information on recreation opportunities being presented, it is difficult to tell to what degree the author is editorializing about "wildland-based recreation opportunities."

Eastside. p. 119. para. 4. It is stated that "Activities such as trail use occur mainly in primitive/semi-primitive areas..." Without a definition of "semi-primitive," one would speculate that this statement is not true. More information on where use takes place is needed. How much activity is within one mile from a road, two miles from a road, three miles from a road, etc. Without better information, it will not be possible to make valid statements in the impact analysis.

Eastside. p. 119. para. 6. Contrary to the findings regarding "wildlife activities," which indicated that wildlife activities are more important than hunting and fishing, Table 2-10 shows that hunting and fishing are more than four times as important as viewing wildlife. What conclusion is to be drawn here? Overall, the recreation section is lacking in information that will be useful to the reader in understanding the alternatives or drawing conclusions about impacts.

Eastside. p. 120. Scenery. This section should be deleted from the DEIS unless the authors are willing to conduct an exhaustive, site specific analysis. Not only is the topic site specific, its interpretation is arbitrary and subject to the values of individuals.

Eastside. p. 121. Issues in Recreation Supply and Management. The purpose of this section is unclear and the discussion is very incomplete. Certainly, there are financial concerns about being able to maintain recreation opportunities. If this section is to be kept, it should be broadened to include other relevant issues such as recreation demand, intensive development of federal lands for recreation (e.g., ski areas and destination resorts), long-term leasing, integration of recreation with other uses to optimize a range of activities over time, trends in public/private partnerships, and the degree to which communities and counties are currently affected by recreation on federal lands.

Eastside. p. 121. para. 5. Mention of human occupancy of the region 12,000 years ago is not very relevant without more detail. If any analysis of cultural resources is to be included in the DEIS, there should be an appropriate level of detail on current conditions in Chapter 2.

Eastside. p. 123. para. 2. It is not appropriate to discuss future declines in regional timber harvest in this section, since it correctly belongs in Chapter 4, Impacts. It is assumed that in trying to develop a sound ecosystem management plan that could supersede the RPA, timber harvest could increase.

Eastside. p. 125. Utility Corridors. What is the purpose of this section? Unless utility corridors are going to be evaluated in the alternatives, the section should be deleted. If it is to be retained, then the discussion provides an inadequate coverage of the topic.

Eastside. p. 126. Road System. It is assumed that impacts to the road system are to be addressed in Chapter 4, Impacts. If that is the case, there is insufficient information on current conditions presented here to be of any value in creating a good understanding of the system or in preparing an impact assessment. There is no analysis of the current road system in terms of connectivity, capacity, accessibility, anticipated demands. Are there road system policy issues? If so, what are they? Without more information, the DEIS will be inadequate with respect to any decisions proposed with respect to road systems.

Eastside. p. 127. para. 5. In comparing existence values as indirect benefits with the value of resource uses, it would appear that the authors are only considering the direct monetary value of resource use without considering either indirect monetary benefits or values placed on having jobs, quality of life, or feeling of well-being resulting from economic security. If the authors are to conduct contingent value types of studies as part of this project, they should be unbiased and look at all value relationships.

Eastside. p. 128. Payments to Local Government. It is assumed that impacts affecting payments to local governments will be addressed in Chapter 4, Impacts. If that is the case, there is insufficient information on current conditions presented here to be of value in understanding baseline conditions.

Eastside. p. 128. Economic Importance Index. Insufficient information is available to evaluate the index in detail, but it is doubtful that it "provides a useful picture of historical relationships between agency land uses and local economic activity." Using a percentage change in population from 1979 to 1995 is at best problematic, since a very small absolute increase in population in a county with a small population will result in a huge percentage increase. Interestingly, almost no statistical relationship between percent of FS/BLM land and population can be found. Use of average timber harvest values when harvest levels have been declining is unlikely to present a valid picture of historical relationships. It was a surprise that county-level recreation visits were used, since these data are very unreliable (note the absence of information in Table 2-15b). We agree with the assumption the recreation visits can be compatible with forage and timber use.

Eastside. p. 130. Employment Associated with Forest Service- and BLM-administered Lands. Employment data on recreation appears to be grossly incorrect and presented in such a way that recreation employment is overstated and employment in the timber and forest products industries are understated. To have any kind of credibility, the estimation methodology for recreation needs to be presented in the text and not referenced to another document. It would appear that the analysis has applied some coefficient to the number of visitor days to derive direct and indirect employment impacts and only considered direct employment in timber harvest.

It may be that the project analyst has unwittingly assigned full-time employment to individuals who are employed part-time. Additionally, a significant proportion of travel assigned to tourism and, subsequently recreation, is in fact business travel. The tourism industry is notorious for mixing trip purposes to improve statistics. Further errors may be made by assigning all of the employment of a multipurpose trip to recreation on federal lands (e.g., a trip to visit relatives that may include a side trip to a national forest). Finally, many expenditures for individuals living in the region that may incidentally recreate may have been fully assigned to recreation. For example, assigning employment associated with car repair may be valid in only a few situations. This is not to say that recreation is unimportant, it is overstated.

Eastside. p. 131. para. 6. Wages in the timber and forest products industry are considerably higher than in activities such as recreation. In data for the Blue Mountains and Northcentral Idaho, for example, earnings for workers in the forest products industry were two to four times higher than for those in recreation. The 1996 report on Northcentral Idaho by Robison and others provides a good example of the impact of the two industries on the local economy.

Eastside. p. 134. para. 1 and 2. Since the 1987 timber dependency study, the volume federal timber available to communities has decreased significantly. As a result, the number of communities, according to the Forest Service methodology, decreased also. To decrease federal timber supplies and then state that communities are no longer, by definition, timber dependent is an unacceptable analytical approach. In order to provide a reasonable analysis of impacts, all of the communities identified in 1987 should still be considered timber dependent unless there is some compelling reason, not stated in the discussion, for excluding them.

Eastside. p. 134. para. 4. The text states that predictability of timber sale volumes is difficult to achieve. In fact, there are many things that can be done to improve predictability that range from increased management efforts to enhance forest health, reduction of risk of catastrophic events, and a firm agency commitment to provide timber sales that are relevant to ASQs.

Eastside. p. 134. para. 6. The authors note that the predictability of local communities receiving jobs as a result of timber sales is questionable. A significant part of the issue of timber sales benefiting local economies has to do with the availability of timber supplies. As timber sales have decreased, mills have had to go farther and farther from their more traditional supply areas for timber. If federal timber supplies were increased and more predictable, there would be a much greater tendency for timber sales to benefit local communities.

Eastside. p. 135. para. 3. In this overview paragraph, the Forest Service and BLM seem to absolve themselves of any responsibility for community economic stability. The discussion on page 136, which refers to responsibilities under the National Forest Management Act and the National Forest-Dependent Rural Communities Economic Diversification Act directly contradicts the overview. Please correct the overview.

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Eastside. p. 138. para. 1. The discussion of large populations and economic diversity contains much debatable information and too many generalizations to provide adequate information for the DEIS. For example, whether population or employment opportunities are lead or lag factors are arguable and depend on many different factors. Stating that "larger economies" have less leakages is meaningless without defining the term. A "large" economy (many jobs) totally dependent on a single activity can be expected to require many goods and services produced outside the area.. To say that it is unlikely that land use decisions (or other components of an ecosystem management plan?) of the Forest Service or BLM will substantially affect larger population or diverse economies is questionable without more information.

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Eastside. pp. 141-143. Attitudes, Beliefs, and Values. This section presents only one point of view; that of an increasing awareness of environmental issues. It does not consider other important attitudinal issues such as how people feel about community growth or stagnation, employment versus unemployment, and many other topics that are equally important to the development of an objective ecosystem management plan. Please add information on these topics.

Chapter 3: Alternatives

General

Much of Chapter 3 is difficult to understand or put together in a logical manner. There seems to have been little effort made to apply ecosystem management concepts to create alternatives that demonstrate integration of ecosystem concepts. For example, the social and economic components are not part of the core make up of the alternatives.
There is very little variation among alternatives, and important elements such as timber outputs show very little range from one alternative to another.

Description of Alternatives. The application of the integrated summary in the form of cluster tables for alternatives does not clearly show differences in terrestrial management emphases. It does not allow for comparisons of alternative cluster groups or for evaluation of how cluster groups relate to the various themes the alternatives are supposed to represent. For terrestrial ecosystem components, the added cluster groupings are confounding factors to an already confusing analysis.

Introduction

Eastside/UCRB. p. 3, para. 1. Two No-Action Alternatives have been identified here. There should only be one NEPA No-Action Alternative. The adopted forest plans in Alternative 1 reflect the last comprehensive planning effort. Alternative 2 contains quick fixes that are interim and well understood not to be intended as long term approaches for responding to dynamic ecosystems. Further, Alternative 2 has failed to provide ecological, economic and social stability and should not be considered a legitimate baseline for comparison purposes.

Eastside/UCRB. p. 3, para. 4. How can each alternative have a different desired future condition? The agencies need to define the DRFC and then assess the ability of each of the alternatives to attain the DRFC. By having multiple DRFCs, the agencies are, in effect, saying that they have no future direction in mind.

Eastside/UCRB. p. 3, para. 5. It is noted that goals pertain to only five of the alternatives. The goal and objectives and standards and guidelines need to be the same for all of the alternatives, including Alternatives 1 and 2. The writer does not appear to have a consistent, logical, process for evaluation of alternatives in mind.

Differences between Current Plans and Alternatives

Eastside/UCRB. p. 4. One of the points made here under vegetation management activities and needs is that "Resources in excess of these needs are available for social and economic benefits to society." This clearly implies the needs of society are secondary. Project staff have repeatedly stated that healthy forests and societal needs are co-equal. This statement and its attitude need to be removed from the project thinking.

Eastside/UCRB. p. 4, last para. The authors' statement about referring to DRFCs to understand the difference between alternatives is incorrect. The DRFC is not a future physical appearance of the forest or range. It is the degree to which the Purpose and Need for the project are met. If there is a DRFC in mind for the project, then it should be included in the purpose and need statement. Heroic assumptions are needed to conclude that the management actions of each of the alternatives will result in the requisite DRFC. Unless individual simulations have been run for each of the alternatives that include all the components of the ecosystem, there is no reason to assume a relationship between management actions and a DRFC.

Alternative Development

Eastside/UCRB. p. 5. para. 8. The logic track developed late in the EIS process does not mesh well with the earlier alternatives, and it is unfortunate that there has been an attempt to mix logic with a more random selection process. The logical (later) approach has limited applicability, since it only includes a few of the management topics that made up the earlier alternatives. The problem of mixing alternative development approaches is compounded by lists of objectives and standards with no coherent description as to how management actions in the individual alternatives apply to them. As a case in point, Table 3-2, which is to provide a summary comparison of alternatives, lists only 6 topics, 4 of which relate directly to forest management or range management.

Eastside/UCRB. p. 10. Table 3-3. As a management approach, only decreases in road density are considered. This is a good example of the lack of integration considered in the alternatives. If it was recognized that recreation on federal lands is important to the region and the preponderance of recreation depends on roads, why are there not approaches that consider increases in road mileage and, in some cases, road density? Permanent road closure is not an answer to meeting needs for recreation, fire suppression, and ecosystem management, maintenance and resulting timber harvest, yet it seems to be the only approach considered.

Direction for Alternative 2 - Level 1

Eastside/UCRB. p. 31. It would be helpful to the reader if "Level 1" is explaining within the context of the Northwest Forest Plan.

Eastside/UCRB. p. 33, Human Uses and Values. It is incorrect to say that the Objectives and Standards for Alternative 2 and Alternative 1 are the same, since Alternative 2 consciously restricts active management within riparian areas and limits silvicultural opportunities and resulting timber supplies all of which adversely affects community economic development. A thorough recognition of differences should be identified instead of applying a cursory "same as" description.

Direction for Alternatives 3-7

General. The ICBEMP is to be congratulated on developing a list of goals and desired range of future conditions common to Alternatives 3-7. It moves the process in the right direction. There is much to be done here, however. For example, understanding the normal range of conditions for a specific resource has been continually stressed as a way to place context around existing conditions. Yet, none of the DRFCs address the importance of this context. As a result, DRFCs such as "...soils function similarly to soils that have not been harmfully disturbed" yield little guidance. It might be better to remove the subjectivity ("harmfully disturbed") and replace it with wording that stresses soil function within the context of its natural variability. It is only within this context that one can reasonably expect to judge "harm" to a resource in the first place. In this sense, a DRFC such as "...duff depth (are) moving toward that which is typically associated with a natural fire regime..." is an example of a DFRC that attempts to relate future conditions with the range of conditions normally expected to be on the landscape. More (if not all) of the DRFCs need to follow a similar approach.

It remains puzzling why the ICBEMP retains alternative-specific DRFCs. One cannot assign "desired futures" that are specific to an alternative without confounding the analysis. It is akin to developing one alternative to build a bridge and a second alternative to build a shopping center. Whether the alternatives can be compared depend on the composition of the DRFCs. Each alternative may meet a specific need. Yet, neither meet the same need and comparing their respective effectiveness toward meeting a common DRFC is an exercise in futility unless DRFCs are shared. In the case of the bridge project, one alternative might build a bridge with two lanes and another with four lanes. Another alternative might include HOV lanes. Nevertheless, all alternatives address the central goal of improving traffic flow across a river and one can compare and contrast the alternatives with that end in mind.

By retaining specific desired futures for each alternative, the ICBEMP is essentially comparing seven different projects. Each project is described by its theme and desired range of future conditions. One project wants to build a landscape with PACFISH, another without PACFISH. One project wants to build a landscape with 10-20% lethal fires in Moist Forests while another wants to build a landscape with 20-30% lethal fires in Moist Forests. One project suggests moving forward with landscape management, while another suggests no management without solid research results. Each alternative may meet specific needs but none of them appear to be addressing the *same* needs, thus limiting objective comparison between the alternatives to assess their relative effectiveness and their relative environmental impact. Each direction will result in decidedly different results and the basic framework is only partly in place to judge their impacts. As it currently reads, the alternative-specific DRFCs almost seem to be an attempt to justify the impacts of a given alternative. Justification of impacts implies bias in the analysis.

If this project is to be successful, it is imperative to stick to a single, unified set of goals and DRFCs for the project. All alternatives must be compared to these goals and DRFCs to enable the public and the decision-makers to be confident that the project team has compared apples with apples. Only those elements shared by *all* alternatives should be reserved for this status.

Thus, it is strongly recommended that the alternatives focus on a single set of DRFCs. Removing the concept of alternative-specific DRFCs from the document will greatly clarify the thinking of both the project team and the public who are asked to read and comment on the analysis.

Eastside/UCRB. p. 39. Introduction, and Desired Range of Future Conditions. DRFCs are described as both "desired" or "expected" in 50 to 100 years. There is an important difference between what is desired, and what is expected. Expectations, which reflect the degree to which goals common to all alternatives are met, are the subject of analysis, and discussion within DEIS Chapter 4. Stating alternative DRFCs as "expectations" prior to analysis indicates that results are predisposed and are not a product of analysis. To what degree in dynamic ecosystems can we expect or predict active outcomes? DRFC's are conditions to move toward, not guaranteed outcomes.

Eastside/UCRB. p. 39. Goals. Over time, the EIS team has continued to reduce the number of goals and at the same time make them more general. The result is that the current goals are vague and almost meaningless. Some goals are out of character with ecosystem management. For example, the goal pertaining to threatened and endangered species should be deleted and replaced with goal statements that relate to a multispecies approach. Goals are the foundation of the planning process. With vague agency goals, the likely outcome is a weak management plan.

Eastside/UCRB. p. 39. Desired Range of Future Conditions. Where did these DRFCs come from? They almost look like an alternative. These should be included in the Purpose and Need Statement if they apply to all of the alternatives. Many of the DRFCs are too loosely written to have any valuable practical application. For example, what is meant by no downward trend in quality and quantity of riparian areas, wetlands, and lakes? Can there be short term variations as long as a trend is met? What constitutes a trend? What is an upward trend? These are ill-defined concepts that are ripe for legal misinterpretation. A serious rewriting of this entire section is critical.

Eastside/UCRB. p. 45. Human Uses and Values (similar comment applies to all alternatives). The DRFCs stated here appear to be a sort of impact analysis wish list. There is no guarantee that an alternative can attain its DRFC. What if, after impact analysis an alternative "fails" its own DRFCs? Are the DRFCs lowered or relaxed or is the alternative dropped from further consideration? Individual alternative DRFCs should be deleted. If something is important enough to be a DRFC for one alternative, it should be important enough for all alternatives.

Eastside/UCRB. p. 59. Alternative 5. Aquatic Ecosystems. This is not an accurate depiction of what riparian areas and streams will look like. For instance, "many riparian areas remain open and without vegetation cover." To the contrary, all perennial and intermittent streams must be vegetated and provided with fully functional shade and large woody debris-providing trees, in non-timber emphasis areas, and in timber emphasis areas. Additional negative bias towards the

Alternative 5 DRFC predisposes the lay reader toward rejection of the approach. Conversely, at p. 68, a glowingly healthy description of stream conditions is provided for Alternative 7. This description ignores the likelihood that under Alternative 7, and to some degree Alternatives 1 and 2, watersheds and streams will often be placed at increased risk of catastrophic damage by wildfire.

Objectives and Standards for Alternatives 3-7

Definitions

Eastside/UCRB. p. 69. Objectives and Standards. Many of the following objectives, standards, and guidelines do not adhere to the definitions noted on this page. As a result, it is difficult to tell the actual intent of individual statements. The objectives and standards demonstrate a lack of understanding of planning concepts:

- objectives are not linked to goals;
- many objectives are, in fact, goals;
- some standards are really objectives;
- goals, objectives, and standards need to apply to all alternatives--many objectives are identified as not applicable to Alternatives 1 and 2;
- some objectives have elements (such as annual variation in timber harvest) that are different for each alternative.

Terrestrial Ecosystems

Description of Alternatives. Objectives, Standards, and Guidelines (O, S & G) for wildlife and wildlife habitats are inconsistent in their content and haphazardly applied to alternatives. Some O, S & Gs are detailed and precise, some are broad generalizations, and some are just statements. The presentation of O, S & Gs within the alternatives defies logic. There is no systematic ordering of O, S & Gs to assist the reader in understanding and in applying these concepts. Other problems include major editorial issues, e.g., the numbering system of the O, S & Gs for terrestrial components in Alternative 1 is different from the O, S, & G numbering system in the other alternatives. The numbering problem results in O, S & Gs that are not comparable from alternative to alternative. Also, there is no way to understand or compare how the various alternatives would actually implement the O, S & Gs.

Eastside: pp. 19 - 30. Terrestrial Ecosystems - Objectives and Standards.
The objectives for terrestrial ecosystems are scattered throughout three sections, i.e., Terrestrial Ecosystems (7 objectives), Aquatic Ecosystems (3 objectives), and Northwest Forest Plan (11 objects). It would be helpful if these were centralized and organized to facilitate comparisons. Also, some seem redundant. The format here is quite different than the tabular format of O, S, & G for Alternatives 3 - 7, making comparisons very difficult.

Eastside: p. 39. Goals and Desired Range of Future Conditions.
As presented on this page the relationship between Goals and DRFC's is unclear and appears redundant. The list of statements of DRFC's is not easily comprehensible and should be organized to present a coherent picture of future conditions.

Eastside: pp. 44, 50, 66. Desired Future Conditions - Forest wildlife habitat
These paragraphs are supposed to describe the desired picture for forest wildlife habitat. While any one of the three can be evaluated alone, it is difficult to compare the vision of future wildlife habitat between alternatives. The changes are highly qualitative variations in phrases that not lend themselves understanding differences and relationships. Also, a statement of forest wildlife conditions should be available for all seven alternatives not just for Alternatives 4, 6, and 7.

Eastside: pp. 44, 50, 66. Desired Future Conditions - Forest wildlife habitat
Hypothetical blanket statements such as "natural areas. . . contribute to . . . the delisting recovery of threatened and endangered species" should be qualified. Also, the appropriateness of such statements in a DRFC description is questionable.

p. 74. TE-S4. How will silvicultural activities in reserves be funded if they are not offset by commercial sale?

p. 80. Alternative 7. TE-S11. IWM strategies should be included for reserves as well as lands outside of reserves. Noxious weeds will not respect reserve boundaries. IWM strategies may, in fact, be more effective in reserve areas, assuming that areas designated as such will be largely weed free in the first place. Allowing noxious weeds to gain a foothold in these areas is completely counter to the reason for establishing the reserve and, as experience by The Nature Conservancy and other conservation groups around the world has shown, will be regretted.

p. 80. TE-S14. This is a standard that requires considerably greater clarity prior to implementation. The wording used in this standard is extremely vague and when applied to species range "edges" could effectively remove much of Columbia River Basin federal lands from any human use. This standard should be removed from the DEIS.

p. 81. TE-S15. More detail should be provided in the text regarding "snag recruitment analysis" to enable the reader to assess the potential effects of this standard.

p. 81. TE-O10 and TE-O11 with standards. Movement corridors are a highly controversial topic. Numerous studies have identified movement of a species within a habitat but, ironically, few have been able to demonstrate *selective* use of specific habitat over another adjacent habitat for movement by a given species. Consequently, it would be virtually impossible to differentiate habitat important for species migration from habitat unimportant for movement. As with TE-S14, this objective has the potential to effectively remove much of ICRB federal land from human use. Moreover, how does one "connect" late seral/old forest ecosystems across different ownerships (i.e., between blocks of federal land) without affecting private land? Until better research information is available to support (a) the legitimacy of movement corridors, and (b) the appropriate techniques for establishing and managing movement corridors for all terrestrial species, this is an inappropriate set of objectives and standards. It is recommended that TE-O10, TE-S18, TE-S19, and TE-S20 as well as TE-O11 and TE-S21 be modified to reflect this uncertainty.

p. 81. TE-S18. This standard, which requires accurate forest inventory information at the 4th code HUC scale, may be difficult to implement with structural stage inventories available to the ICBEMP. Comparison of ICBEMP 1-km^2 structural stage data with U.S. Forest Service 25-meter-square satellite data reveal gross inconsistencies regarding the forest inventory. ICBEMP staff have indicated that the spatial integrity of ICBEMP data breaks down at the 4th code HUC scale. How will the data inconsistencies be resolved during implementation.

It is encouraging to see that a plan for replacement of late seral/old growth structural attributes is included as a standard. Old forest structures and habitats are transitory in nature and replacement plans involving silvicultural practices to achieve a dynamic balance in representation of all forest conditions need to be in place and executed.

p. 83. TE-S20. It is necessary to clarify "retain late/old seral stands 100 acres or larger." A professional silviculturist would understand that late/old seral retention is best performed through active forest management to reduce conditions that may predispose the stand too catastrophic loss. Actions to reduce fire hazard and control insect and disease problems will increase the probability that these stands will persist without loss of late/old seral character. Commercial timber harvest should be possible provided that adequate late/old seral attributes are retained.

Viability and Federally Listed Species

p. 106. V-O1. It is inappropriate to include specific reference to continuation of the Idaho Conservation Effort for Habitat Assessments and Habitat Strategies in this objective. There are likely to be numerous cooperative efforts with other governments during the life of this plan. The Idaho effort is only one. Furthermore, the Forest Service and BLM should not commit to a specific plan with an unspecified outcome. It is possible that the Idaho Conservation Effort could produce results that are inconsistent with the ICBEMP, or that would require reassessment of environmental impacts.

Key Components of the Aquatic Strategy

p. 113, Alternative 2. There is no mechanism for adjustment of the original PACFISH Standards and Guidelines (S&Gs) with information gained through the ICBEMP, or with local knowledge from site specific or watershed analysis.

p. 113, Alternative 4 & 6. Allows adjustment of interim RMA widths, RMOs, and S&Gs via watershed analysis. This approach is very supportable, although in many circumstances, full watershed analysis is not necessary for such refinements.

p. 113, Alternative 7. The RMOs suggested within this alternative—based on a sample of only 200 streams, many of which were not within the analysis area—are seldom achieved even within pristine roadless areas according to data that the ICBEMP relies upon to craft more rational RMOs within Alternatives 4 & 6.

Aquatic Strategies

Water Quality

p. 115. AQ-04. "Maintain water quality where it is presently high" should be adjusted to "maintain water quality where it is presently high in compliance with state standards." Otherwise, any actual or potential impact, no matter how minimal, could provide avenue for administrative and legal challenge of otherwise well conceived management actions (lawyer bait). This caution is noted in several other places.

p. 115. AQ-06. This standard serves no useful purpose. The federal agencies—and everyone else—must presently comply with state water quality standards, including their antidegradation requirements for all streams. The Standard changes nothing, and adds nothing.

p. 117. AQ-S10 within Alts. 3 - 7. This is a very good description of the role of monitoring in relation to RMOs, management activities, and natural conditions.

p. 117. AQ-07 and Elsewhere within Alternative 5. RMOs, RMAs, S&Gs, and use of watershed analysis and site specific analysis and data for adjustment of these are only different from the requirements of Alts. 4 and 6 within timber management emphasis areas. Alternative 5 requirements are designed to provide a high degree of protection to aquatic resources, and given that the even more protective and conservative requirements of Alternatives 4 and 6 will be applied in all other areas, it seems highly likely that Alternative 5 will achieve the ICBEMP's aquatic goals and objectives, while also achieving a higher level of many of the ICBEMP's other goals, including social and economic goals.

Interim Project Standards

p. 121. AQ-S15. Alternative 2, 3, 4, and 6. This standard would not allow timber volume to be considered in the land base used to compute ASQ. There is no rationale provided in ICBEMP documentation provided to date that even attempts to justify such a restriction in the context of ecosystem management. To the contrary, when the percentage of total landscape area that falls within the definitions for RMA for these alternatives is considered accurately, it is hard to imagine how ecosystem management could be accomplished if the means of vegetation management are unduly restricted, as implied by this standard. A preliminary analysis indicates that total landscape area within RMAs for Alternatives 4 and 6 is on the order of 33 percent in Dry Forest types, and 80 percent in Moist Forest types. Has the ICBEMP considered the implications of such high amounts of landscapes within RMAs in view of this and other standards?

p. 121. AQ-S16. Alternative 2 and 3. This standard so severely restricts management within the RHCA areas—which are quite wide and occupy substantial watershed area—that it may not be possible to reduce risk of catastrophic fire when hazardous volumes of live fuels and dead standing and downed fuels are present. In these circumstances, hazards of selective vegetation management are minor in comparison to those often posed by catastrophic wildfire.

p. 122. AQ-S16. Alternatives 4 and 6. "Riparian management areas shall not be considered as important sources of commercial timber." See comments on AQ-S15. In the absence of accurate ICBEMP analysis of the actual area within RMA, how can the ICBEMP possibly understand the implications of this standard? Furthermore, while it may be possible to construct an argument for such a standard for a Zone 1 approach, we are aware of no rationale for such restriction in Zone 2. Sediment from within Zone 2 and from upslope sources can be well controlled while actively being managed for timber resources and in full compliance with any and all instream RMOs. Microclimatic effects upon Zone 1 due to harvesting within Zone 2 can be controlled to whatever degree proves to be necessary through regulation of harvest intensity and canopy density.

p. 122. AQ-S16. Alternative 7. In effect, this standard would prohibit timber harvest within the PACFISH RHCA areas (and more area for most streams) unless the PACFISH RMOs plus a new set of additional RMOs were achieved , irrespective of whether they were not achieved due to natural causes, or causes totally unrelated to past or future management. As pointed out elsewhere within these comments, these RMOs are seldom achieved even within roadless and wilderness areas.

p. 123. AQ-S17. Alternatives 4 and 6. Within Zone 1, "Management shall...have no predictable measurable instream effects." In actuality, models routinely applied by Inland National Forests nearly always predict some degree of effect. Under what circumstances would an ID Team agree that no effect, no matter how small, would not occur? This type of material keeps lawyers in business. Also see **AQ-1, AQ-S21a**.

p. 124. AQ-S18. Alternatives 4 and 6. This standard effectively prohibits even-aged management within Zone 2 RMAs, which as noted earlier can, together with Zone 1, occupy the majority of entire landscapes. In some vegetative community conditions, both existing naturally and unnaturally, this standard would preclude treatments necessary to restore natural function and process.

p. 124. AQ-S19. Alternative 7. This standard would require a watershed analysis whenever equivalent clearcut area exceeds 15 percent. We are aware of no science to support the existence of a 15 percent ECA threshold indicative of watershed jeopardy, certainly not as some blanket for the entire ICBEMP area, or anywhere for that matter.

p. 126. AQ-S21a. Alternatives 4, 5, and 6. "New roads paralleling streams are prohibited." If this is meant to apply within reasonable definition of the RMA, it is justified. There is no justification for such a requirement outside the sediment delivery RMA/Zone. Furthermore, on the one landscape examined relative to this standard, all possible road locations parallel streams at some distance, and often it is not possible to access major areas without road located parallel to streams for at least some road mile distance within Zone 2 as presently defined, and in some cases, Zone 1.

p. 127. AQ-S21f. Alternative 2-7. It is not feasible to avoid sidecasting of snow. Furthermore, the standard prohibits sidecasting on road segments within or abutting RHCAs/RMAs. This restriction is only necessary where sediments due to sidecasting could potentially reach streams either through surface erosion or mass wasting, and it certainly is not justified on gentle slopes. It would effectively require that all new roads be full benched. Why?

p. 128. AQ-S22a. Alternatives 4, 5, and 6. The language at the end of this standard, "or do not protect watersheds from increased sedimentation," provides no meaningful addition to the paragraph or protection of streams, but it does invite legal challenge of future projects. Have the agencies reviewed these standards with their legal council?

p. 129. AQ-S24. Alternative 5. This standard is fully supportable, and it is suggested that it be incorporated into all other alternatives: Roads constructed further than 150 feet from streams can be designed, constructed, and maintained to prevent all but minimal and insignificant additions of sediment to streams. This is demonstrated by the literature.

p. 129. AQ-S24. Alternative 7. This standard would require reduction of existing road density and other measures wherever road density exceeds two miles/square mile. This standard is totally without technical merit because: (1) there is no evidence that supports a direct causal linkage between road density and effect upon streams, and (2) there is no threshold of effect at two miles/square mile, or any other level of density.

p. 136. AQ-S44. Alternatives 2-6, and 7. In alternatives 2-6, this is a good standard. The standard for alternative 7 is excessive, impractical, and often may prove to be unachievable.

Interim Riparian Management Areas (RHCAs or RMAs) Width Definitions

p. 149a, b. See earlier comments. Zone 2 width is in excess of the width reasonably necessary for control of sediment or any other potential effect upon streams. Zone 2 is so extensive that, depending on standards within it, desirable and necessary ecosystem goals and objectives will be precluded for entire watersheds.

Human Uses and Values

HU-O1. This is really a goal statement; ecosystem "functions and processes" are not described in Tables 3-12 and 3-13 as implied. Once again, there is a failure to state a single, clear, objective that can be used to compare alternatives.

HU-O2. Again, having different outcomes as objectives is inconsistent with basic logic. Which is the right answer? How do you tell?

HU-S1. What is this standard supposed to mean? What are examples that could preclude meeting the objective?

HU-O4. There is a concern that the Forest Service and BLM have shown a bias against rural communities by using arbitrary means to reduce the number of communities they would even consider as potentially impacted. Rather than eliminating communities from consideration as the revised calculation of timber dependent communities does, and glossing over impacts, a worst case or reasonable case scenario that seeks to identify all impacts is appropriate.

HU-S2. It is inappropriate to identify "priority areas" in the ROS. How are impacts to be measured if the areas to be considered are identified only after the fact?

HU-O5. Why wait 3 years before completely supporting community efforts at resiliency? Which communities will be supported? Aside from the 3 year schedule, this objective is really a goal. What does "support rural communities" mean? As written, this is a vague promise without commitment. It will be impossible to fail if even the slightest action is taken.

HU-O6. This is another vague goal with a vague 3-year schedule to do something. "Define an agency role" could mean anything. There is no direction, no commitment, no accountability.

HU-O7. This objective (actually a goal) considers only one element of the relationship among humans, the forest, and fire. Management of fire for forest health, recreation, aesthetics, timber production and other commodity production are also important. The explanation notes the interest placed on protecting homes. There is also interest in maintaining a range of recreation opportunities and other ecosystem functions. This objective appears to have been singled out more for political than good management reasons.

HU-O9. This objective should be deleted, since all it says is that Objective HU-01 will be implemented. This is only a weak attempt to acknowledge the impacts that federal land uses have on local governments.

HU-11. Despite claims that recreation accounts for some 87 percent of the economic activity on Forest Service and BLM lands, this is the only objective that deals with recreation in a substantive manner. Even then, the objective is highly biased toward specific types of recreation that have the lowest demand levels. There is no basis for limiting new recreation opportunities to only a narrow spectrum of activities. The objectives should include a wide range of recreation opportunities of different intensities.

Ecosystem Management

p. 163. EM-O3. This objective is vague. What is "the January 30, 1996 integrity paper"? This objective should be rewritten.

p. 165. EM-O8 and Accompanying Standards. Maintenance of soil productivity is a fundamental aspect of good forest and range management. When one loses the inherent productivity of the soil, many ecological and management options are lost along with it. Yet, the underlying rationale for the soil productivity objectives and standards in Chapter 3 is noticeably vague. That soils change as a result of vegetation changes may or may not be a cause for concern; indeed, these changes are to be expected. What is a more relevant question is whether the change that occurs to soil over time is consistent with historical range of expectations for the site.

The ICBEMP has embraced constant change of landscapes as an ecological paradigm, yet these objectives and standards seemingly imply that soils are not supposed to change along with the dynamic landscape. This is ironic since soil is the underlying support system for all ecosystems and to suggest that it is abnormal for soils to change implies that soils are somehow independent of the ecosystem. Indeed, as vegetation develops on a site, changes in quantity and quality of organic matter occur naturally which, in turn, affects the development of the soil. When a forest burns, organic matter, including that in the soil, can be rapidly oxidized. Invasion of the burned site by grasses and forbs contributes new forms of organic matter from fibrous root systems or can recruit nitrogen to the site through N-fixation by herbaceous legumes. Organic matter quality gradually changes as woody seral stages begin to replace the herbs. Thus, soil changes are a natural, integrated component of ecosystems and, of and by themselves, are not cause for alarm. Obviously, this concern would have more credibility in those areas where soil changes fall significantly outside of the historical range of variability for soil dynamics.

The standards that have been developed for the objective of maintaining/restoring soil productivity may not fulfill the objective. There may be several good reasons for retention of large organic debris in forested ecosystems. It is unlikely, however, that support of sustainable nutrient supplies is one of them. Large logs are more likely to tie up soil nutrients than to cycle them. Wood has a high carbon:nitrogen ratio. As a result, greater amounts of wood on the site will immobilize limiting nutrients (particularly nitrogen) in microbial biomass to be released only very slowly over very long periods of time. While this may support certain microbial components of the ecosystem, this would occur to the detriment of other components of the system. Long-term decomposition products could potentially contribute to the organic matter content of the soil in the immediate vicinity of the logs, but provide little nutrient supply support to the remaining 99 percent of the forest floor area.

If the objective of this standard, as stated, is to "provide for sustainable nutrient supply" then retention of smaller material spread across a wider area would be more appropriate to accomplish the objective. Bark has higher nutrient concentrations than wood. Nutrient concentrations are proportionately higher on smaller diameter material because it has less wood and more bark. Microbial biomass would immobilize nutrients for a shorter period of time because of this. Decomposition of smaller material, organic matter contributions, and turnover of critical nutrients would be more consistent with ecosystem demands. It is recommended that scientific basis for the standards supporting Objective EM-O8 be reexamined.

Draft Maps, Tables, and Figures

Map 2-3. Annual Precipitation. The highest category is ">24 inches," which does not provide an adequate range of conditions.

Draft Appendix G: Interim Riparian Management Objectives.

Alternative 2 and 3. p. 1. These alternatives rely on the original PACFISH RMOs. Within PACFISH, and now again here, appear statements that now are demonstrably untrue, such as, "It has been determined that the RMOs described in PACFISH were good indicators of ecosystem health," and that "the RMOs represented a good starting point to describe the desired condition for fish habitat," and that the "Interim RMOs are considered to be the best watershed scale information available." But in fact the ICBEMP now has data at its disposal that demonstrates that these statements are not true, and that many of the PACFISH RMOs are seldom achieved even within roadless and wilderness watersheds. For instance, compare Overton's 1995 field data from the Idaho Batholith to the PACFISH RMOs at page 2:

Pool Frequency

Source	Channel width (ft)				
	10	20	25	50	75
PACFISH Pools/mile	96	56	47	26	23
OVERTON Pools/mile	54	31	23	9	4

Also, the PACFISH RMO for channel width/depth ratio, for all channels irrespective of channel type or geomorphology, is <10. However, Overton's extensive sample of roadless area streams revealed a mean width/depth ratio 26, and that less than 25 percent of all channels had width/depth ratios of the PACFISH RMO (<10). Two major conclusions can be drawn:

- PACFISH RMOs are not based on the "best" data;
- management that tries to achieve PACFISH RMOs is tantamount to management for an unnatural and possibly unhealthy condition, and a condition that is not achievable.

Alternatives 4 and 6. pp. 3-5. The text generally reads well, and the interim RMOs are far more realistic and data-based than those from PACFISH. There continues to remain some danger that theses RMOs remain too generalized, but it may be that in most locations, these RMOs do provide a meaningful starting point until they can be replaced with locally derived RMOs called for in Alternatives 4 and 6.

Alternative 5. pp. 15-16. Word for word, this is nearly identical to Fish 2000, where there are no "interim" RMOs in the absence of meaningful data. RMOs are only established based on local data; that is, similar to Alternatives 4 and 6 for ERU 13, and based on Overton's data report.

Alternative 7. pp. 16-17. This alternative requires PACFISH RMOs **plus** the adjustment of RMOs requires watershed analysis, which must be "peer reviewed" by "interagencies." It should be noted that:

- PACFISH RMOs are known to be inapplicable wherever real field data have been collected in the Basin;
- full watershed analysis is seldom if ever needed for factual refinement of instream RMOs;
- "Interagency review" of watershed analysis conducted by interagency personnel not familiar with local conditions and watershed processes would more often lead to administrative entanglements than it would lead to improved analytical products;
- **p. 17.** Alternative 7 RMOs for fine sediment, cobble embeddedness, and water temperature (standards in addition to those of PACFISH) are known to be commonly and normally exceeded within roadless area watersheds with excellent physical and biologic integrity. These RMOs do not provide meaningful measures of expectations or measures of management success

Draft Appendix G: Interim Riparian Management Area (RMA) Delineation

Alternatives 4 and 6. Alternatives 4 and 6 rely on a tiered zone approach to RMAs. Zone 1 is the inner zone, where most stream input processes are controlled, and Zone 2 is the outer zone, a "transition and buffer" where microclimate effects and sediment is controlled in order to protect Zone 1 and the stream. It should be noted that:

- Zone 1 definition/boundaries are justified for both perennial and intermittent streams;
- Zone 1 management Standards and Guidelines (S&Gs), management direction, and true intent are not described clearly here nor elsewhere within DEIS Chapters 1-3;
- there remain serious concerns about the definition (boundaries) for Zone 2;
- Zones 1 and 2 combined occupy a substantial percentage of total watershed area, and, depending on the management S&Gs, may render effective management

infeasible;

- An interim Zone 2 concept that would prevent clearcutting immediately adjacent to Zone 1 may have some technical justification in consideration of blowdown, or perhaps potential microclimatic effects within Zone 1. However, a minimum width of one tree height (1H) for Zone 2 (in addition to the Zone 1 (1H) is not justified on these effects alone;
- Minimum Zone 2 width is 1H for perennial streams and ½H for intermittents. Although such a wide buffer would prevent most concentrated sources of road sediment from reaching streams, what is not considered is that those few sources that actually reached the stream would be delivering, on average, very small amounts of sediment: (1) only 25% of total eroded volume is transported more than 40% of total travel distance, and (2) only 5% of eroded volume is transported more than 70% of travel distance; a major factor is obstruction density on soil surfaces. Megahan and Ketcheson's maximum sediment transport distance was 47 feet for diffuse sources of erosion such as those originating form logging-induced soil disturbance

These observations suggest that: (1) Zone 2 for control of sediment should only apply to road related sources; (2) Zone 2 width should be narrower based on more realistic measures of sediment delivered at a distance from source, not simply travel distance alone; and (3) Zone 2 width in Moist Forest types should be ½ of that needed for Dry Forest due to surface obstruction density.

Mr. REGULA. Mr. Geisinger, Northwest Forestry Association.

Mr. GEISINGER. Thank you, Mr. Chairman.

For the record, my name is James Geisinger. I am president of the Northwest Forestry Association, a trade group that represents forest product concerns in the States of Washington and Oregon. I would like to testify on our association's behalf this afternoon, and with your permission, my colleague from the Inter Mountain Forest Industries Association, James S. Riley, has asked to have my comments associated with him and his organization. It is a very similar group representing forest products concerns in Idaho and western Montana.

We are both very strong supporters of Section 314, an amendment to bring some closure to this ongoing effort for developing long-term management strategies in the Columbia River Basin, and hopefully our testimony this afternoon will help you understand why we continue to support such a measure.

A brief bit of history, I think, is necessary to fully understand the concerns that we have about this undertaking. It clearly was the product of a threat of a lawsuit by the Natural Resources Defense Council in 1993. They were very concerned that they did not share in the management plan prepared by the Clinton administration for the west slope of the Cascades, the so-called Option 9, President Clinton's Forest Plan.

They went to the administration and asked for a similar undertaking on the eastern part of the Cascades and, in fact, an area embracing the entire Columbia River Basin. That was really the genesis of this effort.

One of the first things that the administration did supposedly to preserve options to be considered by their team of scientists was to impose what is referred to as the eastside screens, which in effect brought the timber sale program in the east side of Washington and Oregon down by about 60 to 80 percent. They employed a study called PACFISH to address anadromous fishery concerns and a similar plan called INFISH for native inland fisheries.

The impact of these interim directions has been quite devastating, and they were, in effect, implemented with nothing more than a memo out of the administration. I would submit, Mr. Chairman, that if the Forest Service ever tried to increase their timber sale program by 60 or 80 percent with a memo, that they would be sued. In fact, we were forced to bring litigation on this very issue, and that litigation is ongoing.

The ICBEMP was born in January of 1994, and since then we believe it has taken on somewhat a life of its own. It is, in fact, our view the Eastside version of President Clinton's Forest Plan for the Pacific Northwest, the plan that brought our timber sale program down by about 80 percent from the traditional levels that were sold in the decades of the 1980s.

These interim directions, we are very concerned, were going to be not replaced but, in fact, institutionalized by the Columbia River Basin Planning Project. This was a plan to be completed in May of 1995, and here we are in May of 1996, without a final plan, not even with a draft of the environmental impact statement.

Section 314 was intended to bring this project to closure. It ordered the Forest Service and the BLM units to embrace the scientific findings that have been developed to date and to implement those on a site-specific basis through forest-by-forest plan amendments where necessary. I can't overemphasize "where necessary," because we are talking about a very diverse ecosystem and a diverse landscape.

Our biggest concern with the outcome of this process is that we are going to have a one-size-fits-all solution to an area covering three or four and a half States. This was supposed to be a cooperative effort between a number of agencies, and yet we have seen very heavy-handed tactics by the Environmental Protection Agency, the National Marine Fishery Service and the U.S. Fish and Wildlife Service regarding aquatic ecosystems. Last year, they sent a letter to the team saying, you do it our way or we won't do it all the way. They put that in writing, signed by three regional directors from those respective organizations.

We are very concerned that the forest health concerns that everybody shares will not be adequately addressed in this plan. Based on information we have received through a Freedom of Information Act request, the timber outputs being considered under every alternative but the no action alternative proposed very significant reductions in timber supply. In fact, most of the alternatives kind of congregate around the 50 percent reduction, which concerns us tremendously.

The economic analysis associated with the work done to date is flawed as well. The impact of reductions in timber harvest, we think, are severely understated in the analysis undertaken so far. Probably of greater concern, the benefits evolving into a recreation-based economy are equally overstated. In fact, the State legislature in the State of Idaho commissioned a study that showed that recreation use would have to increase by 291 percent in order to make up for the losses from the timber-based economy in this area.

We are also concerned about inflexible standards and guidelines, particularly when it comes to aquatic systems, where buffers as large as 300 feet along both sides of the anadromous fish-bearing streams would be the standard that would be applied in a blanket fashion rather than site-specific.

Mr. REGULA. Would that be private as well as public?

Mr. GEISINGER. As far as I know, this is on Federal land only. But the point is we need some site specificity brought to the table here in order to do an adequate job and a professional job of addressing problems on the ground.

Finally, we are very concerned that there appears to be no implementation strategy for this plan. We do not know if every national forest and BLM unit is going to be told to apply the same standards and guidelines everywhere and everyplace, or if there is going to be some formal plan amendment process to update the national forest management plans that each of these national forest units have to bring in this new science on a site-specific basis.

So we basically have three recommendations. Number one is this plan should reflect both economic concerns as well as social and environmental concerns. And we are very concerned that the timber-based part of this region's economy is getting short shrift in terms of how it is being addressed in the economic analysis done so far.

We think that Congress needs to intervene at some point and bring some closure to this process that has gone on and on and on and provide some specific instructions on how the information developed through this process, which by and large is very valuable, be applied on a site-specific basis. And that is, in fact, our third recommendation, that forest-by-forest, BLM-unit-by–BLM-unit plan amendments be the vehicle for implementing this new information on the ground.

We think the process has gone on far too long. It has cost far too much money. It is very precedential in nature. As far as I know, the National Forest Management Act has no provisions to do multi-regional broad-based ecosystem management plans. We thought the NFMA was supposed to be the template for preparing management plans on these national forests, and we are quite concerned that this effort goes far beyond the intent of that statute.

Mr. REGULA. Thank you.

[The information follows:]

Introduction

Good afternoon, Mr. Chairman. My name is James C. Geisinger. I am the president of the Northwest Forestry Association (NFA). The NFA represents primary forest product manufacturers throughout Oregon and Washington on matters that affect timber supply. The members of NFA are very concerned over the outcome of this project. Consequently, we have been very active in the process since its inception.

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) proposes to amend 74 Forest Service and BLM plans within the interior Columbia Basin. This would be accomplished by two large scale environmental impact statements (EIS) referred to as the Eastside EIS which covers eastern Oregon and eastern Washington, and the Upper Columbia River Basin (UCRB) EIS which includes those portions of Idaho, Montana, and neighboring states that are within the Columbia or Snake River drainages.

General Issues and Concerns

The charter (January 21, 1994) for the Project calls for four products: 1) a scientific framework for ecosystem management; 2) a scientific assessment for ecosystem management in the interior Columbia Basin; 3) a final environmental impact statement and record of decision; and 4) a scientific evaluation of planning alternatives. Originally, the draft EIS was to be completed in November, 1994 with the final EIS approximately 6 months later in May, 1995.

We were at first encouraged by the Project's time line and commitment to an open process. Unfortunately, now, 28 months later, our opinion is quite different. The Project grew in size, took on a life of its own, consumed too much of limited dollars intended for the Forests to use in on the ground management, and was not as open a process as we had hoped.

We also grew increasingly concerned with the scientific integrity and objectivity underlying the Project. Much of this is based on our review of the Draft EISs obtained under a FOIA request in April and portions of the draft scientific assessment.

In general, these concerns include the following:

Gridlock Persists. Project leaders have made concerted efforts to enlist the cooperation of federal regulatory agencies in the planning process. But last year after the Preliminary Draft EISs were released, the National Marine Fisheries Service (NMFS), the US Fish and Wildlife Service (USFWS), and the Environmental Protection Agency (EPA) indicated in a joint memorandum to the Executive Steering Committee of the Project their unwillingness to allow riparian management measures they perceive to be less stringent than theirs, even if studies indicate that a new management approach may actually reduce catastrophic risks and environmental impacts on endangered species. They continue to push for an Aquatic Conservation Strategy jointly designed by them to be incorporated into each proposed alternative to provide direction for riparian management. Their approach lacks integration and prolongs the "one size fits all" restrictive management that has been a key feature of the interim strategies that have prevented the management agencies from dealing effectively with forest health problems. What is particularly troublesome is that NMFS and the other regulatory agencies did not adequately participate in the Project throughout the development of the Preliminary Draft EISs.

Forest Health. A major impetus behind the Project has been concern over forest health conditions in the Inland West. Numerous studies and reports, including the Everett Report (1993), The Blue Mountains Ecosystem Restoration Strategy (1993), the Kitzhaber Report (1995), and a Forest Health Alert issued by the Oregon Department of Forestry in 1995, have documented the severity and extent of forest health problems in the region and the risks of catastrophic wildfire associated with them. The Project Charter cited Dr. Everett's report, *Eastside Forest Ecosystem Health Assessment*, as one of the key sources to be studied in developing an ecosystem management strategy for the interior Columbia River Basin. Yet the effects of each of the alternatives on forest health have not been clearly and prominently presented in Chapter Four which examines the environmental consequences of the alternatives. This chapter needs to be revised to address impacts on forest health from each of the management alternatives.

Wildfire risks increase as forest health conditions decline with direct implications for aquatic and riparian resources as well as soil conditions. One of the most effective ways to reduce the risk of catastrophic wildfire and thereby protecting these resources is through active management techniques such as thinning of overcrowded stands followed by prescribed burning. Yet the Draft EISs erroneously conclude that alternatives which propose active management (alternatives 4 and 5) create a higher likelihood of disturbance to these resources than alternative 7, whose passive management approach would actually increase the risk of large, high-severity fires.

Timber Outputs. One of the main "Needs" identified by the Project is to assure adequate, predictable timber supplies from public lands. Yet there are several indicators in the Draft EISs that cause us to question whether this goal will be met. First, the number of acres shown to be available for harvest in output tables compiled for all of the Draft EIS action alternatives is substantially lower than the harvest acreage declared in the adopted forest plans. Second, a draft report by the Project's landscape ecology team recommends against the harvesting of medium to large trees across much of the Interior Columbia River Basin. Third, we are concerned that by averaging forest inventory data, the science integration team is under-representing the quantity of medium to large diameter trees and available forest volume thereby masking opportunities to offset ecosystem management costs by producing valuable commodities. It appears that the Project may be seriously under-estimating the capacity of the public lands in the region to supply merchantable timber on a sustainable basis and may in fact be contributing to forest health problems.

The following table shows the projected merchantable timber volume, acres treated, and volume per acre by alternative for the eastside (figures are per year):

	Alternative						
	1	2	3	4	5	6	7
Volume (MMBF)	1,450	790	725	770	925	625	311
Acres (x1000)	145	75	103	110	125	90	28
MBF/Acre	10.00	10.53	7.07	7.00	7.40	6.94	11.11

Alternative 1 is the No Action or current forest plan alternative. Alternative 2 is current forest plans plus interim direction, i.e., eastside screens, PACFISH, and INFISH. Alternative 3 focuses on minimizing unwanted change to local communities due to Federal land management and therefore includes an emphasis on local public involvement in decision making. Alternative 4 is designed to aggressively restore ecosystem health through active management. Alternative 5 emphasizes only economic efficiency consistent with principles of ecosystem management Alternative 6 emphasizes experimental and adaptive management to restore and maintain ecosystems in a slow and cautions manner. Alternative 7 establishes a system of reserves that would provide very little opportunity for citizen use of public lands.

Two points can be made which would call into question the analysis relating to timber outputs based on the above table. First, the figures provided by the Project for Alternative 2, which reflects current management including interim direction, are totally erroneous in that they grossly overstate actual performance. For fiscal years 94 and 95, the eastside forests accomplished 305.6 and 417.3 million board feet (mmbf) respectively. These are the first two fiscal years that were completely under the direction of all the interim directions. Given this, how did the Project come up with a figure nearly twice this (790 mmbf)? Also, for Alternative 2, the 10.53 mbf/acre figure is off by at least a magnitude of ten from what is actually happening in practice.

The second point is that Alternative 4, the one which is designed to aggressively restore ecosystem health through active management, has the fourth lowest total volume and nearly the lowest volume per acre. If aggressive restoration through active management results in the one of the lowest overall volumes and the lightest per acre treatments over so few acres, what exactly do the Project managers have in mind? What is their concept of active management and aggressive restoration?

Old Growth and Other Forest Structures. The Draft EISs contain targets for establishing and maintaining large amounts of old growth structures. While old growth characteristics play an important role in eastside forests, it is widely accepted that a balanced representation of different forest structures is important for providing healthy and resilient forest ecosystems. An over-representation of old forest structures does not provide for species diversity, reduction of risk of large disturbances such as catastrophic wildfire, insects and disease, and arbitrarily limits access to abundant supplies of merchantable timber.

Economic Values. There has been a concerted effort to downplay the importance of the forest products industry to the regional economy. Despite the fact that the forest products sector directly and indirectly contributes 9 to 11 percent of the entire regional income, there is a persistent and incorrect view expressed in the Project's economic assessment that it is a relatively insignificant economic contributor. The effort by the Project to downplay the importance of resource based industries is an intentional tactic of the agencies to make it easier to adopt policies that adversely impact these industries.

The Project simply ignored recent studies that show how truly significant the forest products industry is to the region's economy. One such study, *A Study of the Effects of Changing Federal Timber Policies on Rural Communities in Northcentral Idaho*, by Robison, et al was commissioned by the Idaho Legislature and completed in February, 1996. Robison predicts that if current federal timber policies are continued, 6 of the 9 sawmills in the region studied will be forced to close. This would result in a total net loss of 7 percent of all jobs and a 9 percent drop in earnings by the year 2000. Robison also measured the impact on local government finances through the reduction of federal timber. Again, under current policies, he estimates a deficit of $1.6 million or roughly 17 percent of expenditures resulting from job losses and out-migration in Idaho County.

This study is not the only one which refutes the Project's notion that federal lands do not play a significant role in the regional economy. Robison's and these other studies are cited at the end of this testimony.

The other issue here is the Project, while downplaying the overall significance of Federal lands to the region's economy, does just the opposite when speaking about recreation and tourism. According to the draft economic assessment, in the interior Columbia Basin, "only four percent of the jobs are linked to resource [production] industries, while 15 percent of the jobs are attributable to recreation." The Project essentially is saying that we need not be concerned about resource based industries since recreation and tourism is more important and could provide employment for displace workers.

Again, the Project failed to look at all the available information. A recent publication of American Forests in cooperation with the Blue Mountains Natural Resources Institute talks about economic aspects in the Blue Mountains area.

> "Resource-related employment for the Blue Mountain area of Oregon and Washington, i.e. logging and wood products, agriculture, recreation, and federal and state resource agencies, accounts for about 26,500 jobs. This is about 24% of all employment in the region. Only one percent of the resource-related employment is in recreation though the area experiences approximately 12 million recreational visits a year.

> From the gross receipts of product sales from the national forests, 25% is remitted to local governments. These monies are used for maintenance of area roads and schools. Because the local governments employ many area residents, the economic effects of changes in management activities that affect gross receipts need to be considered before any project decisions are made especially since percentage of unemployment, exceeded the respective state average in all counties of the Blue Mountains in Oregon and Washington.
>
> Based on data from the eight-county region of northeast Oregon and four-county region of southeast Washington, approximately 60% of the timber harvest has been from US Forest Service land with the remaining 40% coming primarily from private land....
>
> Most residents of the Blue Mountains and many residents of the United States benefit in some measure from the natural resources of the Blue Mountain area. These benefits range from supporting livelihoods to the quality of life we enjoy. In the Blue Mountains our dependence on forest resources is particularly apparent in: the timber industry's reliance on National Forest timber, the domestic uses of water supplied by forest watersheds, the importance of forage provided for livestock, the special relationship Native Americans have to their lands and waters, and the many recreation opportunities the area provides." (emphasis added)

Though the American Forests publication is referring to the Blue Mountains region, it would be safe to say that the relative figures apply throughout the basin. What's particularly interesting is that Thomas W. Quigley, who is the Project's Science Integration Team Leader, was one of the editors of the American Forests publication.

The Project also advances the notion that recreation and tourism can replace jobs lost in the timber industry. This concept is also without basis. Robison, et al looked at the question of whether timber income can be replaced by tourism. The authors developed a *tourism-replaces-timber scenario* by increasing tourism sufficiently to cover the earnings lost due to the federal harvest cutbacks. The model results indicated that tourism would need to increase by 291 percent beyond its 1994 level. This results in part because the earnings per worker are much greater in timber towns than they are in towns catering to the needs of tourists and residents with outside income. For example, earnings per worker in Pierce, a timber town, were over $31,000 in 1994 compared to about $19.000 in Riggins, a tourist town.

Another example is in 1994 the average annual payroll per job in Lumber and Wood Products in the Blue Mountains area was $28,117. The similar statistic for all jobs in the U.S. was $26,939. Workers in recreation (Amusement/Recreation Services) typically do not earn a family wage. Again in 1994, the average annual payroll per job in this sector in the Blue Mountains area was $7,024.

The fact is a good ecosystem management strategy can provide opportunities for commercial products, recreation, and environmental enhancement at the same time.

Flexible vs Rigid Riparian Management Strategies. In developing riparian management strategies, project scientists are increasingly recognizing the need to consider site specific conditions. However, each of the alternatives in the Draft EISs includes provisions for forest supervisors to resort to the application of rigid, preconceived standards such as no-harvest 300 foot buffer areas if they are unable to conduct watershed analysis on their national forests. These "optional" standards in the Draft EISs resemble the management restrictions contained in PACFISH and the Eastside Interim Management Direction (or eastside screens) and are inconsistent with the Project's goals and principles. The Project's Charter calls for the development and implementation of long-term strategies to replace these interim strategies. Instead, what we are seeing is the perpetuation of the status quo or worse.

The forest products industry strongly supports restoring anadromous and resident fisheries. We are, however, of the opinion that measures for freshwater habitat be scientifically sound, address all resource values, and minimize social and economic impacts. Also, we must be realistic and recognize that there is a multitude of factors that have led to the decline and lack of recovery of anadromous and resident fisheries. The role that Federal lands have played in this array is a very minor one. Thus we should not expect to place the burden of recovery measures on these Federal lands.

The proposals we are seeing from the Project for riparian management area buffers are not only arbitrary but would result in setting vast areas of forest off limits to management. A recent analysis of a 16,776 acre watershed in the Blue Mountains compares four different strategies for riparian area management. The Oregon Water Classification Rules, adopted by the Oregon Department of Forestry and accepted by EPA and state Department of Environmental Quality for state and private lands, results in approximately 4 percent of the watershed in buffers. The PACFISH standards, already criticized for being excessive, results in 21 percent in buffers. The two proposals from the Project, the Two-tiered, Tree Height approach and Two-tiered, Slope-based approach, would result in 23 and 33 percent of the watershed in buffers respectively. Watersheds with higher stream densities, steeper slopes, or taller trees than the one analyzed, would result in higher percentages in buffers. In these "tiered" approaches, we are concerned with the lack of clarity on what, if anything, can happen in these areas.

The immediate question then is how, with up to 33 percent of a watershed set aside in these riparian buffers, can the agencies hope to address forest health concerns? Also, with these buffers, how can the agencies expect to efficiently manage the adjacent and interspersed lands? What is the impact to local communities of these proposals? None of these questions are being answered by the Project.

Technical Imbalance. While the Project Charter specifically calls for a management strategy that integrates "social values, ecological capabilities, and economic relationships," many Project proposals focus more on preservation of natural resources than on creating a plan which addresses equally the needs of wildlife, habitat, people, and communities. For example, data gathered as part of the assessment provide a much less detailed picture of social and economic conditions in the region than they do of ecological conditions. This imbalance suggests that ecological issues are being weighed more heavily in project analysis and product development than social and economic issues.

Support for social and economic well-being is one of the Project's key "Needs." We are very concerned that the Project may not meet this need. Jobs and people must be given equal consideration with ecological factors in developing resource management strategies.

Agencies Lack Comprehensive Implementation Strategy. We have repeatedly been asking how the agencies will make the transition from the conclusion of the Project into amending or revising management plans. To date, we have not received an answer to this question. Of course our ultimate objective, which is not inconsistent with the agencies', is to be able to manage these lands for sustainable resources on a consistent and predictable basis. Unfortunately, indications are that this won't happen in the near future. If the Final EISs and Records of Decision for the ICBEMP amend the forest plans, no one is willing to say how that will happen and what the nature of the amendments or revisions will be. Our previous experience with simultaneous amendments to forest plans (eastside screens, PACFISH, and INFISH) have resulted in top-down, one size fits all measures that restrict management more than guide it. We are concerned that the Records of Decision for the Project will result in the same thing or in lieu thereof, call for further studies and analysis before any management can take place. Either way, we don't see this project breaking the gridlock on the ground which is presently preventing management from occurring.

Also of great concern is the treatment of existing projects when the new management direction from the Project and subsequent forest plan amendments is implemented. Too often in the past when significant changes in direction have been implemented, e.g. eastside screens, PACFISH, and the President's Forest Plan, existing projects and even previously completed analyses have been discarded or gone through lengthy revisions to comply with the new direction. This has led to gridlock, frustration, and a waste of limited resources.

Recommendations

I have presented here some of the issues of greatest concern to us with the ICBEMP. Certainly there are more and these have been well documented and submitted to the Project. Given this, our recommendations at this time include:

1) We need to see a document that is equally reflective of social and economic considerations as it is for ecological considerations,

2) Given the concerns about the forest plan amendment process which will likely be lengthy, assistance from Congress is necessary to expedite this process and assure some likelihood of success,

3) Grandfather existing projects and analyses to avoid doing them over once the new strategies are completed, and

4) The Project needs to take a little more time, given the outcome of the appropriations bill, and review these and other comments it has recently received and make the necessary changes to its products. How much time should be very limited--perhaps a month or two at most. The Project has taken too long as is and we want it to come to a conclusion as soon as possible. but we also want the conclusion to be credible and implementable which we don't believe is the case given the current draft products.

References

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Mr. REGULA. Mr. Halley, Pulp and Paperwork Customers Resource Council.

Mr. HALLEY. Good afternoon. My name is David Halley. I am a member of the United Paperworkers International Union Local 712, and I work at the Potlatch Corporation Pulp and Paper Mill in Lewiston, Idaho. I am a constituent of the 5th Congressional District of Washington, and I would like to thank Representative Nethercutt for inviting me to be here and represent the views of working men and women from the pulp, paper and solid wood products industries. Too often in recent years our opinions have not been sought until after the pink slips have been handed out and we are being asked which field we would like to be retrained.

The idea behind the Interior Columbia River Basin Project seemed to be a sound one. The U.S. Forest Service and BLM recognized the need to address what were becoming increasingly large problems over a wide geographic range. We could leave politics and personal agendas out of the process and institute a science-based approach to the natural resource issues that have basically encased management of our national forests in gridlock.

The project so far leaves a few questions unanswered. The project was first started under the ecosystem management approach. In presentations to concerned stakeholders, this process was depicted as three overlapping rings that closely resembled the Olympic symbol. One ring represented the biophysical element, the next was the social element, and the third was the economic element. Management activities that fell into the overlapping portions of the rings could go forth under the project.

What we have seen in the information that has come out so far is that the biophysical concerns are getting far more attention than the social and economic interests. This is especially troubling to us that have seen the same thing happen on the west coast with the Northern spotted owl. What we saw in that debate was that workers and their families were largely ignored. Five years later we find that the owl exists in numbers far greater than ever anticipated and in a wider variety of habitat than was ever thought possible. But that is little comfort to those families whose lives were turned upside down or those communities that were virtually destroyed in the rush to put wildlife species ahead of our own.

What we really haven't seen incorporated into these debates is the studies on human behavior, when a man and a woman no longer can provide food, shelter and clothing for their family; the instances of domestic violence, alcoholism, divorce, poverty and even worse. I have yet to see any documentation of an owl taking its own life because it couldn't procreate.

A total of 22 communities in the Columbia Basin region, including four in the northern part of my congressional district, have been identified by the project as, quote, timber-dependent. When asked if timber-dependent communities would receive special consideration by the project, a representative of the Forest Service replied, we are not required by law to protect or sustain communities. He acknowledged that people may not like that fact, but that is the law, which he said reflects the changing values of people. I don't agree with that statement.

I believe that the vocal minority has gotten its way the past few years, and the people who live in these affected areas are finally saying enough is enough. It is imperative that community and economic stability have equal importance to biophysical concerns in any final document or documents that come out of the project. We cannot afford to relive the mistakes made on the west coast in the early 1990s.

Another area of concern is the lack of the Forest Service's ability to keep timber in the pipeline while the project is getting done. There also seems to be a lack of clear understanding on how the finished EIS is going to be used to change existing forest plans. I have heard the science team leaders quoted as saying the two projects will be a broad-scale plan that will have little utility on the national-forest level. Meanwhile, back at the forest level, land managers are waiting for the results to see how it will affect their forest plans. If I understand correctly, after the EIS is completed, there will be a three-year time frame to mesh the two together. This is simply too long. The pipeline is empty, and no one is priming the pump.

The intent behind the language that would have stopped the funding of the project at the draft stage was to get the scientific information contained in the draft into the hands of local forest land managers and to let them use that information to manage the lands entrusted to them. We must agree with this approach.

Decisions made regarding implementation of the science included in the EIS should be made at the lowest possible level; preferably at the national forest level, but no higher than the regional planning level. We can't afford someone sitting behind a desk in Washington, D.C. making specific land management decisions for Idaho. The person closest to the finished product usually knows what is best in certain situations. We in labor recognize that the U.S. Forest Service has some extremely competent and dedicated employees who really care about the lands that they manage, but our worst nightmare would be for this EIS to become a one-size-fits-all management plan for the 86 million acres of Federal lands covered by the project, or worse yet, that it dictate management for the full 144 million acres, which includes millions of acres of private property. We were very distressed by the administration's resistance to include language that specifically spells out private property rights as they relate to the Endangered Species Act under this project.

On March 8th of this year the United States Court of Federal Claims handed down a landmark interim opinion in the case of Hage v. The United States. Chief Judge Loren Smith gave considerable attention to explaining the basic philosophy behind the fifth amendment taking clause. He said, taking cases are only about one thing, whether the government action in question takes private property without just compensation. Taking cases are not about the environment or endangered species or wetlands. The protection of the Fifth Amendment is most needed to protect the minority against the exercise of governmental power when the need of the government to regulate is greatest and the desire of the popular majority is strongest. The existence of property rights, not the judiciary's finding of a taking, impose these limits.

We applaud the efforts of the Members of the Pacific Northwest congressional delegation who have worked so hard to try and make sure strong property rights language was included in the appropriations bill.

Recently, Dr. Jay O'Laughlin of the College of Forestry, Range and Wildlife Sciences at the University of Idaho was asked, what was the biggest barrier in coming to some agreement on these forestry issues that we are deadlocked on? He replied simply, lack of public trust. I thought it was an excellent answer. Sooner or later, we are going to have to let our land managers do the jobs that they are charged with doing, allowing for the flexibility to do what is right on a particular piece of ground.

I am a firm believer in the public's right to have input in Federal and state land management decisions, but we must get away from letting each individual citizen micromanage our forests. I am weary of individuals who answer every forestry disagreement with a tired old phrase, well, they are my forests, too. Well, they are my space shuttles, too, and the Navy's aircraft carriers are mine, too, but nobody gets to tell me when they can take them out. I can't think of any other government operation or program that allows the type of individual citizen involvement as the Forest Service's timber sale program.

Congress needs to set policy and modify current Federal law to get the courts out of forest management or avoid getting the courts in where they are not already. Forests should be managed on a sound scientific basis and not on emotionalism.

Because this project is intended to modify some 74 Forest Service and BLM plans within the Columbia River Basin, we need strong language to prevent those plans from ending up in court should the final EIS be the subject of a lawsuit. This should be about removing gridlock, not creating it.

In conclusion, I would just like to say that labor has a vested interest in seeing some movement on these issues. We realize that the future of timber harvests in the Pacific Northwest will not reach where they have been in the past, but we cannot live with where they are right now. The sooner we find the middle ground that we can all live with, the better. Our livelihoods and our families depend on it.

We try to offer common-sense solutions to the problems that we face, rather than just whine about what we don't like. An excellent example of this is the floating net pen juvenile salmon transportation system designed by George Kiepke of Astoria, Oregon. This proposed project is a common-sense, low-cost enhancement to the current smolt barging program. It has been endorsed by many Members of the Northwest delegation and many government entities, but after 3 and a half years of trying, we still can't get the half million dollars needed to make the project a reality.

But we will be here, willing to talk to anyone, any time, to try and move this debate forward. Labor has a long history of successfully negotiating about issues on which we disagree. We are stuck right in the middle on this one, but maybe that is good. Maybe we are the ones who can bring both sides to the table and find the answer. We certainly appreciate the opportunity given us today to express our opinion.

Thank you.

Mr. NETHERCUTT [presiding]. Thanks very much, Mr. Halley.

[The information follows:]

TESTIMONY OF
DAVID A. HALLEY
FOR THE HOUSE APPROPRIATIONS COMMITTEE
INTERIOR SUBCOMMITTEE
INTERIOR COLUMBIA RIVER BASIN ECOSYSTEM MANAGEMENT PROJECT
MAY 07, 1996

GOOD AFTERNOON. MY NAME IS DAVID HALLEY. I AM A MEMBER OF THE UNITED PAPERWORKERS INTERNATIONAL UNION LOCAL 712 AND WORK AT THE POTLATCH CORPORATION PULP & PAPER MILL IN LEWISTON IDAHO. I AM A CONSTITUENT OF THE FIFTH CONGRESSIONAL DISTRICT OF WASHINGTON. I WOULD LIKE TO THANK REPRESENTATIVE NETHERCUTT FOR INVITING ME TO BE HERE TODAY AND REPRESENT THE VIEWS OF WORKING MEN AND WOMEN FROM THE PULP, PAPER AND SOLID WOOD PRODUCTS INDUSTRIES. FAR TOO OFTEN IN RECENT YEARS, OUR OPINIONS HAVE NOT BEEN SOUGHT UNTIL AFTER THE PINK SLIPS HAVE BEEN HANDED OUT AND WE'RE BEING ASKED WHICH FIELD WE'D LIKE TO BE RETRAINED IN.

THE IDEA BEHIND THE INTERIOR COLUMBIA RIVER BASIN PROJECT SEEMED TO BE A SOUND ONE. THE U.S. FOREST SERVICE AND BUREAU OF LAND MANAGEMENT RECOGNIZED A NEED TO ADDRESS WHAT WERE BECOMING INCREASINGLY LARGE PROBLEMS OVER A WIDE GEOGRAPHIC RANGE. WE COULD LEAVE POLITICS AND PERSONAL AGENDAS OUT OF THE PROCESS AND INSTITUTE A SCIENCE-BASED APPROACH TO THE NATURAL RESOURCE ISSUES THAT HAVE BASICALLY ENCASED MANAGEMENT OF OUR NATIONAL FORESTS IN GRIDLOCK.

THE QUESTION WAS FAIRLY SIMPLE. HOW DO WE GO ABOUT SAVING OUR DWINDLING SALMON POPULATIONS, PROVIDE HABITAT FOR GRIZZLY BEARS, BULL TROUT AND OTHER SPECIES ACROSS A VERY DIVERSE LANDSCAPE? A LANDSCAPE THAT DOES NOT RECOGNIZE THE ARTIFICIAL BOUNDARIES THAT MAN HAS IMPOSED ON IT IN THE FORM OF NATIONAL FOREST AND BLM DISTRICT BOUNDARIES, OR WHETHER IT WAS FEDERAL, STATE OR PRIVATE OWNERSHIP. THE OVERALL PLANNING OF THE TWO EIS'S (EASTSIDE AND UPPER COLUMBIA RIVER BASIN) TO BE DEVELOPED UNDER THE PROJECT SEEMED TO BE OKAY. BUT I BELIEVE THAT THE PROCESS USED COULD AND SHOULD BE IMPROVED. THE PROJECT SO FAR LEAVES MANY QUESTIONS UNANSWERED.

THE PROJECT WAS FIRST STARTED UNDER THE ECOSYSTEM MANAGEMENT APPROACH. IN PRESENTATIONS TO CONCERNED STAKEHOLDERS, THIS PROCESS WAS DEPICTED AS THREE OVERLAPPING RINGS THAT CLOSELY RESEMBLED THE OLYMPIC SYMBOL. ONE RING REPRESENTED THE BIOPHYSICAL ELEMENT, THE NEXT RING WAS THE SOCIAL ELEMENT, AND THE THIRD WAS THE ECONOMIC ELEMENT. MANAGEMENT ACTIVITIES THAT FELL INTO THE OVERLAPPING PORTION OF THE RINGS COULD GO FORTH UNDER THE PROJECT. WHAT WE HAVE SEEN IN THE INFORMATION THAT HAS COME OUT SO FAR IS THAT THE BIOPHYSICAL CONCERNS ARE GETTING FAR MORE ATTENTION THAN THE SOCIAL AND ECONOMIC INTERESTS.

THIS IS ESPECIALLY TROUBLING TO US THAT HAVE SEEN THE SAME THING HAPPEN ON THE WEST COAST WITH THE NORTHERN SPOTTED OWL. IN ADDITION TO MY LOCAL UNION AFFILIATION, I AM CURRENTLY THE WESTERN REGION DIRECTOR OF A GRASSROOTS LABOR ORGANIZATION KNOWN AS THE PULP & PAPERWORKERS' RESOURCE COUNCIL OR PPRC.

THE PPRC WAS FORMED IN 1992 IN THE PACIFIC NORTHWEST BY A GROUP OF CONCERNED TIMBER INDUSTRY WORKERS TRYING TO STOP SOME OF THE ENORMOUS JOB LOSSES STEMMING FROM EFFORTS TO SAVE THE OWL. WHAT WE SAW IN THAT DEBATE WAS THAT WORKERS AND THEIR FAMILIES WERE LARGELY IGNORED. FIVE YEARS LATER WE FIND THAT THE OWL EXISTS IN NUMBERS FAR GREATER THAN EVER ANTICIPATED AND IN A WIDER VARIETY OF HABITAT THAN WAS EVER THOUGHT POSSIBLE.

BUT THAT IS LITTLE COMFORT TO THOSE FAMILIES WHOSE LIVES WERE TURNED UPSIDE DOWN OR THOSE COMMUNITIES THAT WERE VIRTUALLY DESTROYED IN THE RUSH TO PUT WILDLIFE SPECIES AHEAD OF OUR OWN. I UNDERSTAND THAT THE PRIMARY REASON FOR RESTRICTING ACTIVITIES AROUND AN OWL NEST IS THAT THE OWLS EASILY GET AGITATED BY NOISE AND THEREFORE DON'T MATE AND PRODUCE OFFSPRING. WHAT WE REALLY HAVEN'T SEEN INCORPORATED INTO THESE DEBATES IS THE STUDIES ON HUMAN BEHAVIOR WHEN A MAN OR A WOMAN NO LONGER CAN PROVIDE FOOD, SHELTER AND CLOTHING FOR THEIR FAMILY. THE INSTANCES OF DOMESTIC VIOLENCE, ALCOHOLISM, DIVORCE, POVERTY AND WORSE. I HAVE YET TO SEE ANY DOCUMENTATION OF AN OWL TAKING IT'S OWN LIFE BECAUSE IT COULDN'T PROCREATE.

A TOTAL OF 22 COMMUNITIES IN THE COLUMBIA BASIN REGION, INCLUDING FOUR IN THE NORTHERN PART OF MY CONGRESSIONAL DISTRICT HAVE BEEN IDENTIFIED BY THE PROJECT AS "TIMBER-DEPENDENT" WHEN ASKED IF TIMBER-DEPENDENT COMMUNITIES WOULD RECEIVE SPECIAL CONSIDERATION BY THE PROJECT, A REPRESENTATIVE OF THE FOREST SERVICE REPLIED, "WE'RE NOT REQUIRED BY LAW TO PROTECT OR SUSTAIN COMMUNITIES." HE ACKNOWLEDGED THAT PEOPLE MAY NOT LIKE THAT FACT, BUT THAT IS THE LAW, WHICH HE SAID REFLECTS THE CHANGING VALUES OF PEOPLE I DON'T NECESSARILY AGREE WITH THAT STATEMENT I BELIEVE THAT THE VOCAL MINORITY HAS GOTTEN IT'S WAY THE PAST FEW YEARS, AND THE PEOPLE WHO LIVE IN THESE AFFECTED AREAS ARE FINALLY SAYING ENOUGH IS ENOUGH! IT IS IMPERATIVE THAT COMMUNITY AND ECONOMIC STABILITY HAVE EQUAL IMPORTANCE TO BIOPHYSICAL CONCERNS IN ANY FINAL DOCUMENT(S) THAT COME OUT OF THE PROJECT WE CANNOT AFFORD TO RELIVE THE MISTAKES MADE ON THE WEST COAST IN THE EARLY 90'S

ANOTHER AREA OF CONCERN IS THE LACK OF THE FOREST SERVICE'S ABILITY TO KEEP TIMBER IN THE PIPELINE WHILE THE PROJECT IS GETTING DONE. THERE ALSO SEEMS TO BE A LACK OF CLEAR UNDERSTANDING ON HOW THE FINISHED EIS IS GOING TO BE USED TO CHANGE EXISTING FOREST PLANS I HAVE HEARD THE SCIENCE TEAM LEADERS QUOTED AS SAYING THE TWO PROJECTS WILL BE A BROADSCALE PLAN THAT WILL HAVE LITTLE UTILITY ON THE NATIONAL FOREST LEVEL MEANWHILE, BACK AT THE NATIONAL FOREST LEVEL, LAND MANAGERS ARE WAITING FOR THE RESULTS TO SEE HOW IT WILL AFFECT THEIR FOREST PLANS IF I UNDERSTAND CORRECTLY, AFTER THE EIS IS COMPLETED, THERE WILL BE A THREE YEAR TIME FRAME TO MESH THE TWO TOGETHER THIS IS SIMPLY TOO LONG THE PIPELINE IS EMPTY AND THERE IS NO ONE IS PRIMING THE PUMP

THE INTENT BEHIND THE LANGUAGE THAT WOULD HAVE STOPPED THE FUNDING OF THE PROJECT AT THE DRAFT STAGE WAS TO GET THE SCIENTIFIC INFORMATION CONTAINED IN THE DRAFT INTO THE HANDS OF LOCAL FOREST LAND MANAGERS AND TO LET THEM USE THAT INFORMATION TO MANAGE THE LANDS ENTRUSTED TO THEM. IN THEORY, WE MUST AGREE WITH THIS APPROACH

DECISIONS MADE REGARDING IMPLEMENTATION OF THE SCIENCE INCLUDED IN THE EIS SHOULD BE MADE AT THE LOWEST LEVEL POSSIBLE PREFERABLY AT THE NATIONAL FOREST LEVEL, BUT NO HIGHER THAN THE REGIONAL PLANNING LEVEL WE DON'T NEED SOMEONE SITTING BEHIND A DESK IN WASHINGTON, D C MAKING SPECIFIC LAND MANAGEMENT DECISIONS FOR IDAHO ALL TOO OFTEN, WE WHO WORK IN THE NATION'S FACTORIES AND BUSINESSES AND ARE PAID BY THE HOUR PUT UP WITH BOOK SMART DESIGN TEAMS AND ENGINEERS WHO NEED NO INPUT FROM THE PEOPLE THAT ARE EVENTUALLY GOING TO MAKE A SYSTEM WORK BUT IN THE END, IT ALWAYS COMES BACK TO THE PERSON CLOSEST TO THE FINISHED PRODUCT WHO KNOWS WHAT'S BEST IN CERTAIN SITUATIONS

WE IN LABOR RECOGNIZE THAT THE U S FOREST SERVICE HAS SOME EXTREMELY COMPETENT AND DEDICATED EMPLOYEES WHO REALLY CARE ABOUT THE LAND THAT THEY MANAGE

OUR WORST NIGHTMARE WOULD BE FOR THIS EIS TO BECOME A ONE-SIZE-FITS-ALL MANAGEMENT PLAN FOR THE 86 MILLION ACRES OF FEDERAL LANDS COVERED BY THE PROJECT. OR WORSE YET, THAT IT DICTATE MANAGEMENT FOR THE FULL 144 MILLION ACRES WHICH INCLUDES MILLIONS OF ACRES OF PRIVATE PROPERTY. WE WERE VERY DISTRESSED BY THE ADMINISTRATION'S RESISTANCE TO INCLUDE LANGUAGE THAT SPECIFICALLY SPELLS OUT WHAT THE GOVERNMENT'S INTENTIONS ARE WHEN IT COMES TO PRIVATE PROPERTY RIGHTS AS THEY RELATE TO THE ENDANGERED SPECIES ACT UNDER THIS PROJECT.

WE **MUST** MAKE SURE THAT THE RIGHTS OF PROPERTY OWNERS ARE PROTECTED WHEN THOSE INDIVIDUALS ARE CHARGED WITH PROVIDING HABITAT OR SPECIES RECOVERY ON THEIR LAND ON MARCH 8, 1996 THE UNITED STATES COURT OF FEDERAL CLAIMS HANDED DOWN A LANDMARK INTERIM OPINION IN THE CASE *HAGE V UNITED STATES* CHIEF JUDGE LOREN SMITH GAVE CONSIDERABLE ATTENTION TO EXPLAINING THE BASIC PHILOSOPHY BEHIND THE FIFTH AMENDMENT "TAKING" CLAUSE AND THE FUNCTION OF THE COURT AS IT ENFORCES THAT CONSTITUTIONAL PROVISION. JUDGE SMITH WROTE;

...WHILE IT IS TRUE THAT THE JUDICIARY HAS A PARTICULARLY FOCUSED MISSION IN PROTECTING THE LIBERTIES OF THE CITIZEN, IT IS NO LESS TRUE THAT MEMBERS OF THE LEGISLATIVE AND EXECUTIVE BRANCHES HAVE AN EQUALLY HEAVY RESPONSIBILITY FOR GUARDING THOSE SAME PRECIOUS LIBERTIES(p2;3)
.TAKING CASES ARE ONLY ABOUT ONE THING, WHETHER THE GOVERNMENT ACTION IN QUESTION TAKES PRIVATE PROPERTY WITHOUT JUST COMPENSATION TAKING CASES ARE NOT ABOUT "THE ENVIRONMENT" OR "ENDANGERED SPECIES" OR "WETLANDS."...(p3;2)

THE JUDGE WENT ON TO SAY,

THE TAKING CLAUSE WAS NOT WRITTEN TO PROTECT MERELY AGAINST FRIVOLOUS EXERCISES OF GOVERNMENT POWER THE PROTECTION OF THE FIFTH AMENDMENT IS MOST NEEDED TO PROTECT THE MINORITY AGAINST THE EXERCISE OF GOVERNMENTAL POWER WHEN THE NEED OF THE GOVERNMENT TO REGULATE IS GREATEST AND THE DESIRE OF THE POPULAR MAJORITY IS STRONGEST AND THAT EFFECT IS TO ADJUDICATE THE LIMITS THAT THE RULE OF LAW AND A WRITTEN CONSTITUTION IMPOSE UPON POPULAR GOVERNMENT THE EXISTENCE OF PROPERTY RIGHTS NOT THE JUDICIARY'S FINDING OF A "TAKING," IMPOSE THESE LIMITS (p5 2)

WE APPLAUD THE EFFORTS OF THE MEMBERS OF THE PACIFIC NORTHWEST CONGRESSIONAL DELEGATION WHO HAVE WORKED SO HARD TO TRY AND MAKE SURE STRONG PROPERTY RIGHTS LANGUAGE WAS INCLUDED IN THE APPROPRIATIONS BILL

AT A RECENT FOREST HEALTH PRESENTATION IN LEWISTON, IDAHO DR JAY O'LAUGHLIN FROM THE COLLEGE OF FORESTRY RANGE AND WILDLIFE SCIENCES AT THE UNIVERSITY OF IDAHO WAS ASKED THE FOLLOWING QUESTION WHAT IS THE BIGGEST BARRIER IN COMING TO SOME AGREEMENT ON THESE FORESTRY ISSUES THAT WE ARE DEADLOCKED ON? DR O'LAUGHLIN REPLIED SIMPLY "LACK OF PUBLIC TRUST " I THOUGHT IT WAS AN EXCELLENT ANSWER SOONER OR LATER WE ARE GOING TO HAVE TO LET OUR LAND MANAGERS DO THE JOBS THAT THEY ARE CHARGED WITH DOING ALLOWING FOR THE FLEXIBILITY TO DO WHAT'S RIGHT ON A PARTICULAR PIECE OF GROUND ALTHOUGH I'M A FIRM BELIEVER IN THE PUBLIC'S RIGHT TO HAVE INPUT IN FEDERAL AND STATE LAND MANAGEMENT DECISIONS, WE MUST GET AWAY FROM LETTING EACH INDIVIDUAL CITIZEN MICRO-MANAGE OUR FORESTS I'M WEARY OF INDIVIDUALS WHO ANSWER EVERY FORESTRY DISAGREEMENT WITH THE TIRED OLD PHRASE "WELL THEY'RE MY FORESTS TOO "

USING THAT ARGUMENT, I COULD CLAIM THAT NASA'S SPACE SHUTTLES OR THE NAVY'S AIRCRAFT CARRIERS ARE MINE TOO I CERTAINLY DOUBT THAT THEY ARE GOING TO LET ME TAKE THEM FOR A SPIN THOUGH I CAN'T THINK OF ANY OTHER GOVERNMENT OPERATION OR PROGRAM THAT ALLOWS THE TYPE OF INDIVIDUAL CITIZEN INVOLVEMENT AS THE FOREST SERVICE'S TIMBER SALE PROGRAM

CONGRESS NEEDS TO SET POLICY AND MODIFY CURRENT FEDERAL LAW TO GET THE COURTS OUT OF FOREST MANAGEMENT OR AVOID GETTING THE COURTS IN WHERE THEY'RE NOT ALREADY FORESTS SHOULD BE MANAGED ON A SOUND SCIENTIFIC BASIS AND NOT ON EMOTIONALISM

BECAUSE THIS PROJECT IS INTENDED TO MODIFY SOME 74 FOREST SERVICE AND BLM PLANS WITHIN THE COLUMBIA RIVER BASIN, WE NEED STRONG LANGUAGE TO PREVENT THOSE PLANS FROM ENDING UP IN COURT SHOULD THE FINAL EIS BE THE SUBJECT OF A LAWSUIT THIS SHOULD BE ABOUT REMOVING GRIDLOCK, NOT CREATING IT

IN CONCLUSION, I WOULD JUST LIKE TO SAY THAT LABOR HAS A VESTED INTEREST IN SEEING SOME MOVEMENT ON THESE ISSUES WE REALIZE THAT THE FUTURE OF TIMBER HARVESTS IN THE PACIFIC NORTHWEST WILL NOT REACH WHERE THEY HAVE BEEN IN THE PAST BUT WE CANNOT LIVE WITH WHERE WE ARE RIGHT NOW THE SOONER WE FIND THE MIDDLE GROUND THAT WE CAN ALL LIVE WITH , THE BETTER OUR LIVELIHOODS AND OUR FAMILIES DEPEND ON IT WE TRY TO OFFER COMMON SENSE SOLUTIONS TO THE PROBLEMS THAT WE FACE, RATHER THAN WHINE ABOUT WHAT WE DON'T LIKE AN EXCELLENT EXAMPLE IS THE FLOATING NET PEN JUVENILE SALMON TRANSPORTATION SYSTEM DESIGNED BY GEORGE KIEPKE OF ASTORIA, OREGON

THIS PROPOSED PROJECT IS A COMMON SENSE, LOW COST ENHANCEMENT TO THE CURRENT SMOLT BARGING PROGRAM IT HAS BEEN ENDORSED BY MANY MEMBERS OF THE NORTHWEST DELEGATION AND MANY GOVERNMENT ENTITIES BUT AFTER 3 1/2 YEARS OF TRYING, WE STILL CAN'T GET THE HALF MILLION DOLLARS NEEDED TO MAKE THE PROJECT A REALITY

BUT WE'LL BE HERE, WILLING TO TALK TO ANYONE, ANYTIME TO TRY AND MOVE THIS DEBATE FORWARD LABOR HAS A LONG HISTORY OF SUCCESSFULLY NEGOTIATING ABOUT ISSUES ON WHICH WE DISAGREE WE'RE STUCK RIGHT IN THE MIDDLE ON THIS ONE, BUT MAYBE THAT'S GOOD MAYBE WE'RE THE ONE'S WHO CAN BRING BOTH SIDES TO THE TABLE AND FIND THE ANSWER WE CERTAINLY APPRECIATE THE OPPORTUNITY GIVEN US TODAY TO EXPRESS OUR OPINION THANK YOU

Mr. NETHERCUTT. Mr. Brouha, we are happy to have your testimony next. If you have a prepared statement, it will be put in the record, and we would be happy to have you summarize.

Mr. BROUHA. Thank you.

The American Fishery Society, of which I serve as executive director, and the Law Society, of which I am a member, appreciates your invitation to testify regarding the Interior Columbia Basin Ecosystem Management Project. The Interior Columbia Basin Management Ecosystem Project has come about as a result of the realization that large-scale ecosystem planning and management on the basis of sound science is the only way to ensure that our land management agencies discharge their public trust responsibilities to this and future generations of Americans.

Scientists have come to realize that only by considering the variety of life and its processes at four levels in a biological hierarchy can we ensure the retention of the capacity to support and maintain a balanced, integrated, adaptive and productive biological community through time. Genetic, species, ecosystem and landscape levels must be considered if we are to develop and implement ecologically sound management programs that will present—that will serve present and future generations with a sustainable suite of benefits from the forests and their associated resources.

Looking at healthy aquatic and terrestrial systems, we can readily see multiple benefits: clean water; naturally controlled floods; deeper, sediment-free waterways; productive, naturally-sustained subsistence, commercial and recreational fisheries; and healthy wildlife habitat that provides a multitude of wildlife-oriented recreational opportunities, such as hunting, viewing and nature study. All these uses sustainably return enormous economic and social benefits to Americans.

As has been noted by my colleague Mr. Geisinger, for the past decade and a half big timber forests of western Washington and Oregon have been in national focus because of their critical role in supporting the economic and ecological health of the Pacific Northwest. The debate resulted in the 1993 Northwest Forest Conference and the development for the first time of a planning framework under FEMAT that considered those four hierarchical levels I mentioned. The national forests and public lands east of the Cascade Crest are no less important. Yet upon examination in 1982, we found no synthesis of scientific information about their status or the status of their biological resources was available. Our examination was occasioned by the request of a bipartisan group of seven Members of this House of Representatives who approached several scientific societies to, quote, initiate a review and report on the eastside forests of Washington and Oregon.

Mr. NETHERCUTT. I am sorry to interrupt you. Did you say 1982, or did you mean 1992?

Mr. BROUHA. Did I say 1982? I meant 1992.

Mr. NETHERCUTT. I thought I heard "1982."

Mr. BROUHA. I apologize.

The Eastside Forests Scientific Society study panel mandate was to review the status of all eastside forests and their associated resources. The panel included aquatic, wildlife and forest scientists. Their report was completed in 1994, and without exception, I would like to offer it as an exhibit to accompany the record of this hearing.

Mr. NETHERCUTT. Without objection, it will be entered.

Mr. BROUHA. From the review our panel learned that the extent of old-growth forest ecosystems has shrunk dramatically during the 20th century. Forest harvest and other human actions have changed the character of many other components of eastside landscapes, including rivers and their populations of resident and migratory salmonid fishes. The combined effects of old-growth logging and fire suppression have significantly increased the vulnerability of eastside landscapes to catastrophic fires and outbreaks of forest pests that have the potential to further threaten what are already severely reduced and degraded habitats.

My written testimony goes into the specifics of what we observed, but let me just excerpt a couple of them. Present amounts of old-growth forest on the eastside are far below historic levels. Many areas that have been set aside in current forest plans that are designated as old growth are not actually old growth. Only 3 to 5 percent of the original ponderosa pine climax old growth remains in the Deschutes National Forest; 2 to 8 percent in the Freemont National Forest. At regional scales, old growth comprises only 25 percent of the forested lands in eight of the eastside forests where data was available.

Now, these impacts result from timber harvest, but the impact of human actions in eastside forests goes well beyond the logging. Road construction, grazing, mining and fire control also degraded forests and their associated resources.

Now, what does all this alteration and disturbance of natural systems add up to? The salmon production of the Columbia Basin has declined to 5 percent of its historic levels. At least 106 major populations of migratory salmon and steelhead trout have been extirpated on the west coast, and many of these on the east Cascades.

I might add, in responding to Doc Hastings' testimony, that the reason you had no endangered species from central Washington was because Yakima stocks were extinguished before the Endangered Species Act came into force.

Resident fishes are also affected. 24 of 25 at-risk species in Oregon occur exclusively in eastside waters. In Oregon and further east in Idaho and Montana, resident bull trout and westslope cutthroat trout have been reduced to fragmented and isolated populations that are very susceptible to catastrophic natural events. Riparian corridors along rivers, streams and lakes have been damaged by logging, road construction and grazing throughout the Interior Columbia Basin. In addition to threatening biological integrity, this destruction threatens the flow of high-quality sediment-free water for use by humans. In the uplands, wildlife species dependent on old growth have been jeopardized. Disturbed soils on steep slopes, especially pumice and granitic soils, have been eroded that contribute, as a result, to stream siltation and reduced soil fertility.

As a result of its evaluation, the Eastside panel made 12 interim recommendations to protect the remaining resources until, and only until, a long-term strategy for protection and restoration can be developed. The recommendations concentrate on remaining old-growth forests, aquatic diversity areas, roadless regions, riparian corridors and soils, because these elements are the basic building blocks for restoring the eastside landscape.

In making the recommendations, the Eastside panel offered its best professional opinions, but they also called for the creation of a second panel with broad expertise to develop long-term management guidelines for securing the ability of eastside forests to resist drought, crown fires and catastrophic outbreaks of insects and pathogens. They also called for this panel to develop a coordinated strategy for restoring the eastside landscape and its component ecosystems; emphasize protecting the health and integrity of regional biological systems as well as the process on which they depend.

We expect the Interior Columbia Basin Ecosystem Management Project to provide much of that necessary analysis.

Now, did the Eastside Scientific Panel presume that one size fits all when it comes to management of forests? No. They acknowledged existing forest plans are inadequate to address the complex ecological issues in eastside forests and to address how to restore in an integrated fashion the regional landscape and their resources. Because Federal lands are only a part, about half as has been previously pointed out, of Interior Columbia Basin landscapes that constitute significant private, State and tribal holdings, regional programs must be grounded in cooperation among diverse groups. The future integrity and health of regional landscapes depends on protecting the elements and processes within them on public as well as private lands.

Basinwide standards and guidelines which reflect national policies must be tailored by these groups to the inventoried status of the natural resources across the landscapes on each forest and district. Future strategies must be developed by inter-disciplinary teams and citizens who have excellent information about local resource conditions.

In closing, let me address one issue raised by the subcommittee in its invitation to testify. That issue is the issue of cost. Mrs. Chenoweth brought up that issue, and Chief Thomas and Director Dombeck will, I am sure, provide the exact figures. But the point I wish to make is that in wrangling over the spotted owl issue for more than a decade, the Shasta-Trinity Forest in northern California spent more than $37 million. As a result of insufficient ecosystem-level analysis and inconsistent forest-by-forest direction, the spotted owl controversy tied up the forests of the Pacific Northwest for more than a decade at untold cost. The alternative to basinwide planning is to fight region by region, forest by forest, district by district and project by project, as we fritter away time and the options to successfully manage these landscapes to sustainably produce the suite of products and services and values that humankind needs.

Now, political leaders have acknowledged that the citizens of this country can't afford to live with deficit budgets and our national debt. We are doing something about that, we think. Well, we can't afford to live with continued conservation deficits and the resulting natural resource debt that a piecemeal approach to Columbia Basin management will produce either. Whatever the cost, it is sure to be an acceptable price to pay to restore and maintain the predictable stream of conservation and economic benefits that we must have if Americans are to sustain their quality of life.

Thank you, sir.

[The information follows:]

Mr. Chairman and members of the Subcommittee, the American Fisheries Society (AFS) appreciates your invitation to testify regarding the Interior Columbia Basin Ecosystem Management Project. The American Fisheries Society is an international organization of more than 9,000 fisheries and aquatic science professionals. Chartered in 1870, AFS is the world's oldest and largest scientific body dedicated to the advancement of fisheries science and the conservation of renewable aquatic resources. Our members come from colleges, universities, state and federal agencies, Tribes, and the Private sector. The Wildlife Society is the international association of over 9,000 professional wildlife biologists nad managers.

The Interior Columbia Basin Ecosystem Management Project has come about as the result of the realization that large scale ecosystem planning and management on the basis of sound science is the only way to ensure our land management agencies discharge their public trust responsibilities to this and future generations of Americans. Scientists have come to realize that only by considering the variety of life and its processes at four levels in a biological hierarchy can we ensure the retention of the capacity to support and maintain a balanced, integrated, adaptive and productive biological community through time. Genetic, species, ecosystem, and landscape levels must be considered if we are to develop and implement ecologically sound management programs that will provide present and future generations with a sustainable suite of benefits (services and products) from forests and their associated resources. Looking at healthy aquatic and terrestrial systems we can readily see multiple benefits: clean water that requires less treatment for human use; naturally-controlled flooding that reduces damage to human developments in floodplains--roads, bridges, farmland, structures; deeper sediment-free waterways that need less dredging to maintain navigation; and productive naturally sustained subsistence, commercial, and recreational fisheries. Healthy wildlife habitat provides a multitude of wildlife oriented recreational opportunities such as hunting, viewing, and nature study. All these uses sustainably return enormous economic and social benefits to Americans.

For the past decade and a half the "big timber" forests of western Washington and Oregon have been a national focus because of their critical role in supporting the economic and ecological health of the Pacific Northwest. The debate resulted in the 1993 Northwest Forest Conference and the development for the first time of a planning framework that considered the four hierarchical levels mentioned above. The national forests and public lands east of the Cascade Crest are no less important, yet upon examination in 1992 we found no synthesis of scientific information about their status or the status of their biological resources was available. Our examination was occasioned by the request of a bipartisan group of seven members of the House of Representatives who approached several scientific societies to "initiate a review and report on the eastside forests of Washington and Oregon." The Eastside Forests Scientific Society Panel's mandate was to review the status of all eastside forests and their associated resources. The panel included aquatic, wildlife, and forest scientists. Their report was completed in 1994 and, without exception, I would like to offer it as an exhibit to accompany the record of this hearing.

From the review our panel learned that the extent of old-growth forest ecosystems has shrunk dramatically during the twentieth century. Forest harvest and other human actions have changed the character of many other components of eastside landscapes, including rivers and their populations of resident and migratory salmonid fishes. The combined effects of logging old growth and fire suppression have significantly increased the vulnerability of eastside landscapes to catastrophic fires and outbreaks of forest pests that have the potential to further threaten what are already severely reduced and degraded habitats.

Present amounts of old-growth forest on the eastside are far below historic levels. Only from 8% (on the Wallowa-Whitman National Forest) to 32% (on the Deschutes National Forest) of old growth is protected administratively. From 70 to 95% of the patches that remain cover less than 100 acres each--too small to provide for the basic needs of many old growth-associated species. Many areas set aside in current forest plans as "designated old growth" are not old growth. The overlap of actual and "designated" old growth varies significantly among national forests: in Winema National Forest, only 16% of designated old growth patches contain more than 70% actual old-growth forest, but in Wallowa-Whitman National Forest, 70% of designated old growth patches do. Ponderosa pine forests have been especially hard hit by logging. Only 3-5% of the original ponderosa climax old growth remains in Deschutes National Forest, 2-8% in Fremont National Forest. At the regional scales, late successional/old growth comprises only 25% of forested lands in 8 eastside forests where data were available.

The impact of human actions in eastside forests goes well beyond logging. Road construction, grazing, mining, and fire control also degraded forests and associated resources.

What does all this alteration and disturbance of natural systems add up to? Aquatic systems have been compromised and large numbers of fishes and amphibians now face extinction in watersheds throughout the eastside. Salmon production in the Columbia Basin has declined to less the 5% of its historic levels. At least 106 major populations of migratory salmon and steelhead trout have been extirpated on the West Coast, many of these east of the Cascades. Resident fishes are also affected--24 of 25 at-risk species in Oregon occur exclusively in eastside waters. In Oregon and further east in Idaho and Montana resident native bull trout and westslope cutthroat trout have been reduced to fragmented and isolated populations that are very susceptible to catastrophic natural events. Riparian corridors along rivers, streams, and lakes have been damaged by logging, road construction, and grazing throughout the interior Columbia Basin. In addition to threatening biological integrity, this destruction threatens the flow of high-quality sediment-free water for use by humans. In the uplands, wildlife species dependent on old growth--the pine marten, northern goshawk, pileated woodpecker, and flammulated owl have been jeopardized. Disturbed soils on steep slopes, especially pumice and granitic soils, have been eroded contributing to stream siltation and reduced soil fertility. Reestablishment of forest cover on such eroded areas may no longer be possible or may take longer than on stable sites where fertility has been maintained.

As a result of its evaluation the Eastside Scientific Panel made 12 interim recommendations to protect the remaining resources "until, and only until, a long term strategy of protection and restoration can be developed." The recommendations concentrate on remaining old-growth forests, aquatic diversity areas, roadless regions, riparian corridors, and soils because these elements are the basic building blocks for restoring the eastside landscape. In making the recommendations the Eastside Panel offered its best professional opinions and they also called for the creation of a second "...panel with broad expertise to develop long-term management guidelines for securing the ability of eastside forests to resist drought, crown fires, and catastrophic outbreaks of insects and pathogens." They also called for this panel to "develop a coordinated strategy for restoring the eastside landscape and its component ecosystems. Emphasize protecting the health and integrity of regional biological systems as well as the processes on which they depend." We expect the Interior Columbia Basin Ecosystem Management Project to provide much of the necessary analysis.

Did the Eastside Scientific Panel presume that "one size fits all" when it comes to the management of forests? No, they acknowledged existing forest plans are inadequate to address the complex ecological issues in eastside forests and to address how to restore, in an integrated fashion, the regional landscapes and their resources. Because federal lands are only a part (about half) of interior Columbia Basin landscapes that contain significant private, state, and tribal holdings, regional programs must be grounded in cooperation among diverse groups. The future integrity and health of regional landscapes depends on protecting the elements and processes within them on public as well as private lands. Basin-wide standards and guidelines which reflect national policies must be tailored by these groups to the inventoried status of the natural resources across the landscapes on each forest and district. Future strategies must be developed by multidisciplinary teams and citizens who have excellent information about local resource conditions.

In closing let me address one other issue raised by the Subcommittee in its invitation to testify. That issue is the cost of the project. Chief Thomas and Director Dombeck will, I'm sure provide the exact figures, but the point I wish to make is that in wrangling over the spotted owl issue for more than a decade the Shasta-Trinity National Forest in California spent more than $37 million. As a result of insufficient ecosystem-level analysis and inconsistent forest-by-forest direction the spotted owl controversy tied up the forests of the Pacific Northwest for more than a decade at untold cost. The alternative to basin-wide planning is to fight region-by-region, forest-by-forest, district-by-district, and project-by-project as we fritter away time and options to successfully manage these landscapes to sustainably produce the suites of products, services, and values humankind needs.

Political leaders have acknowledged the citizens of this country can't afford to live with deficit budgets and our national debt. Well, we can't afford to live with continued conservation deficits and the resulting natural resource debt that a piecemeal approach to Columbia Basin management will produce either. Whatever the cost, it is sure to be an acceptable price to pay to restore and maintain the predictable stream of conservation and economic benefits we must have if Americans are to sustain their quality of life.

Thank you for the opportunity to testify.

[exec/paper/COLUMBIA.TST]

Mr. NETHERCUTT. Thank you very much.

Staff advises me that the study that you presented is of such volume that it is difficult to reprint it. May we include a summary of this study in the record? Would that be adequate as far as you are concerned?

Mr. BROUHA. Sir, I offered it as an exhibit to accompany the record, not to be included.

Mr. NETHERCUTT. That is fine.

Mr. BROUHA. That would be fine.

Mr. NETHERCUTT. Okay. Thank you very much. And thank you all for your testimony. I want to undertake a line of questioning for each of you. I am going to start with you, Commissioner. I get the sense that you are satisfied with the relationship that you, representing 100 counties, had with the project; is that correct?

Mr. HOWARD. That is correct.

Mr. NETHERCUTT. Did you start out with this satisfied feeling? Was there a change along the way in the association level that you had with the study, individuals that made it more satisfactory? Explain what the history of this was as far as your organization is concerned.

Mr. HOWARD. Okay. When we first started out, there was, I would say, nervousness from the commissioners, I would say, both from Oregon—well, from all four of the States. Not familiar and working in this kind of a detailed fashion, you know, we first had to get a feeling of working together in a cooperative manner with the four-State coalition of counties. We had to first establish that. Second, we had to establish a rapport both with the Wallowa team and the team from Idaho and Boise. So it was a two-step process engaged in there.

We also went on to hire consultants of expertise that would assist us and help us throughout the way, and we have hired a range specialist and also a forest specialist as well. They have been with us all the way through the process, and one is still remaining, the range consultant is still on board. But it has been a difficult process, the committee has grown over the year, I would say, and is much more knowledgeable on the issue and where we need to be supportive and pushing the project. And that is in the broad-scale manner.

Mr. NETHERCUTT. What was your position with regard to Section 314?

Mr. HOWARD. We never did, I don't believe, officially take a position on it. We talked about it. I think the general consensus was that we are not too supportive of Section 314. Being involved on the issues and the risks that were involved with all of our communities, there are some longstanding problems that need to be addressed to be defensible, and what we had to deal with was just interim strategies from the PACFISH and from screens, and we didn't see a better alternative to get around those two issues.

Mr. NETHERCUTT. Did the interim directions have a positive impact on your counties' abilities to make decisions or a negative impact?

Mr. HOWARD. I would say it probably had a negative impact. You know, the thinking behind the interim strategies were to maintain all options when we go into performing the EIS process. And if they were not in place, it is more than likely that somebody else would have made the decision on who is going to manage the land and under what court decree, and that just was not an option for us to let the system go to the courts. We were essentially being more satisfied to take the hard licks with the interim strategies and work on the long-term fixes, which is the EIS process.

Mr. NETHERCUTT. Are you satisfied that there won't be challenges to whatever alternative is presented by those who are representing the State?

Mr. HOWARD. You know, there is no guarantees that the process is not going to be challenged. But I am more convinced that if I am going to go to the mat, I want the best plan and the most convincible plan when I do decide to go to the mat. And I think that is the thinking of the Forest Chief, and that is our concern is that if we go to court, we want to win. And we don't want to go to court where we are not prepared to win.

Mr. NETHERCUTT. Once a preferred alternative is chosen, do you think it is advisable that the agencies amend their plans one by one, recognizing it may be more costly to do that, or should they be amended by a blanket amendment? What would your recommendation be?

Mr. HOWARD. Well, from what I know so far, with the problems and conditions and the health of the forests, you know I am a promoter of active forest management, and that probably more than likely is going to be one of the things that is going to promote the counties is active management treatment.

Mr. NETHERCUTT. Do you favor a plan-by-plan amendment or a forest-by-forest amendment, or is it a blanket amendment?

Mr. HOWARD. I would say, if you want to achieve sound forest management with less cost and a quicker timetable, I would say that a blanket amendment would be the way to go.

Mr. NETHERCUTT. So that seems to me to——

Mr. HOWARD. Not forest by forest.

Mr. NETHERCUTT. Right. You think that is better, notwithstanding your argument in favor of, you know, the involvement of local counties in making decisions?

Mr. HOWARD. I would say that before you reach that point, I would say that there would need to be plenty of local involvement from the communities, the counties. I would say that the RAC committees are going to play a key role in the process, and I think with the Eastside Coalition counties that I have confidence in, and respect we have gained, and with the RACs, that I think a blanket approach would be probably the quickest way to expedite active management.

Now—the forest needs treatment, and the wood processors are wanting to get back to having the forest land managers have an active management plan, and if we are going to achieve that goal, then I think the quicker route is the blanket approach.

Mr. NETHERCUTT. Thank you.

Mr. Geisinger, I know you have been extremely involved in this project. You said in your testimony, that when the project began roughly two and a half years ago, your association seemed to be optimistic that you would have some sound resource management; is that correct?

Mr. GEISINGER. Yes. The project started out with a very open environment that really encouraged a lot of public participation. One of the first signs that we were headed for trouble, however, was when the scientists that were supposed to provide the scientific foundation for this plan were asked to subject themselves to a public meeting and actually have people question them. They got tight-lipped almost immediately, and they would not be forthcoming with any information.

After that initial meeting, they were no longer subjected to that kind of public scrutiny. They resented it. They thought they were above it. From that point forward, it is our feeling that the access that we have to the process has been severely limited as opposed to the initial expectations. We certainly do not have the access that the county commissioners have. It is probably appropriate that we don't have, but they do enjoy a much higher level of involvement than I think the general public.

Mr. NETHERCUTT. Are you concerned about the cost of the project? Was that a factor? Apparently your opinion changed. You started out positive and ended up more negative.

Mr. GEISINGER. Well, I think the length of the project is probably more of a concern than the cost, although for every million dollars that is spent on this project, that is a million dollars that isn't being applied at the ground level to do work that we feel strongly needs to be done. I am all for maintaining a strong budget for the U.S. Forest Service and BLM. I would like to see more of it applied to project and field activities rather than theoretical and analytical exercises.

Mr. NETHERCUTT. What is your sense, that the cost of the project costs more than amending all 74 Forest Service and BLM plans individually? Is that your sense or would it be less costly?

Mr. GEISINGER. Planning is an ongoing process within these agencies and I don't know why the costs to do plan-by-plan amendments would have to be much more costly than a blanket amendment. I can give you an idea of why we are concerned, however. Just take the riparian rules as an example. There was recently an analysis done of a 16,776 acre watershed in the Blue Mountains that compared four different strategies for our riparian management. By applying the Oregon Water Classification rules adopted by our Department of Forestry and accepted by EPA, about 4 percent of that watershed would end up in buffers.

If you use PACFISH which is the interim direction right now, about 21 percent of that drainage would be in buffers. If you use the standards being advocated today in the Columbia Basin Project, 33 percent of that drainage would be in no-cut buffers.

Now, I would ask, how are you going to address forest health problems when a third of these watersheds are off limits to any kind of active management, such as the commissioner is advocating?

There may be places where 300-foot buffers are necessary. There may be places where 500-foot buffers are necessary, but I would submit for every one of those there is probably a stream or a drainage that could get by with 100-foot buffer or 150-foot buffer or something less. That is why we think the more site specificity associated with this project's implementation, certainly the better off we think we are going to be, and I would submit the ecosystem would be better off as well.

Mr. NETHERCUTT. And for supervisors, it seems to me, they should have a greater ability to make that decision than perhaps someone looking at the entire project and trying to make a decision that fits everyone. Do you agree with that or not?

Mr. GEISINGER. I would agree with that.

Mr. NETHERCUTT. The justification for this study has been made that it will end the gridlock between the no-cut concept and too much cutting concept considering the endangered species and the rest. Do you believe that the study results will enhance or reduce the likelihood of gridlock on this issue of forest management?

Mr. GEISINGER. I would like to be more optimistic but, no, I don't think it will, for the following reasons: We do have prominent national environmental groups now that have formally adopted a zero-cut position on Federal forest lands. So that is their bottom line. I don't know why they would be content to live with a plan that reduced traditional timber harvest levels by 40, 50, 60 or more percent.

Secondly, I think the size of this undertaking, the precedent-setting nature of it in terms of its scope and geographical area, is going to invite litigation. There are going to be those probably on both sides of the spectrum that are going to want to test some of the legal underpinnings of this plan.

I think Representative Chenoweth observed correctly that there was no authorization to do this other than an internal decision within this administration. So I think it is ripe for challenge.

I think we have to commend the agencies for doing absolutely the best job they can of adhering to the procedural requirements, but I think that the size of this just invites a challenge based on I-dotting and T-crossing, much as we have seen on every plan that the agencies have tried to undertake in the last 10 or 15 years. We think the solution is some kind of congressional intervention to try to make the ground rules a little clearer and their expectations a little more precise than they are today.

Mr. NETHERCUTT. Do you want to add something?

Mr. HOWARD. Yes.

Do you want to yield to me, Jim?

Mr. GEISINGER. Sure.

Mr. HOWARD. I would like to add something else that Jim has brought up on PACFISH, and then I would like to talk about some local recommendations.

Part of this project that we had an interest in focusing on as well from the Coalition of Counties have been, is to have the project come up with some better management strategies for riparian management, in other words, replacing the PACFISH language, allowing more flexibility. Now, the National Marine Fisheries has their own salmon recovery plan, which is my understanding a little more rigid than PACFISH.

This is something that is of concern to us, that we would like to see site-specific management, particularly in the riparian areas. I know the team has been in consultation with the regulatory agencies, but this is an area that we have had some discussions on and giving some relief to PACFISH. You know, we are not a big, strong supporter of PACFISH at all, but at the same time we understand the merits of why it was put in place.

The other issue I want to talk with you on is the process in which a decision is made in identifying an alternative, and I would advocate that a public involvement process be conferred out and discussed, and I would like to see the local areas within the geographic areas come to together and agreements as far as the recommendation for a preferred alternative.

Mr. NETHERCUTT. That is what 314 was intended to do, in my judgment, and that is why we were trying to draft the language in such a way that we weren't precluded from having that input before a decision was made——

Mr. HOWARD. Yes.

Mr. NETHERCUTT [continuing]. Rather than after a preferred alternative was suggested. That is why I was interested in understanding whether you supported it or not. We are trying to accomplish just exactly what I think you and a lot of other people in counties in my district were concerned about. So I think under the law now, my concern is that we may be stuck with, for lack of a better phrase, a preferred alternative, after the fact, that we would not be able to go back in and do something about once it is there. We will hear from the BLM and the Forest Service about that shortly.

But in any event, that is just in connection with 314. The objective we were trying to reach, was that there would be that broad input, take a look at what the proposed or the likely alternatives might be and then before a preferred alternative was established we would have a chance to have input.

So let me go down the line here. I will be right with you.

Mr. Halley, I am especially glad to welcome you because you are my constituent. I appreciate your being here. I know that when you and I spoke about this maybe a year or so ago, you were pretty supportive of it, and, I know you had respect for a number of the scientists who were involved in the project. And I get the sense from your testimony that you have a change of heart. If you could maybe just for the record reiterate what changed and why you have a little different view.

Mr. HALLEY. We still have a great deal of respect for people in the project. I guess it goes back to well, labor and people in labor, in our labor union, have worked with Mr. Mealey very closely in Idaho, and we have had him as guest speaker in a number of our meetings, and Dr. O'Laughlin and Dr. Oliver and a lot of these Northwest scientists who seem to have a grasp of the forest health situation and what needs to be done. Mr. Mealey's work on the Boise National Forest should be a model for every forest, I believe, in the United States for fire rehabilitation and prescribed fire.

We have had the Western Forest Health Initiative that was supposed to treat large acreages that were, you know, eastern Oregon where Mr. Howard comes from, and different places, and it just kind of went by the wayside. So these things come and go.

As this project grows and gets longer and longer, I guess it is apprehension more than not believing in it. What I tried to do today in my testimony is realizing that I agreed with your point of view, that the drafts should come out and that the drafts should be given to the local land managers to use. I believe just in our area, Jim Caswell, excellent Forest Manager, knows what is going on in his forest, give him the scientific information and let him do his job at the local level.

It has nothing to do with the people in the project. It just seems like the project has taken on a life of its own and now it is "the project." It is 144 million acres. We just want to make sure that it is not a cookie-cutter approach. It is much easier, if your intent is to keep dirt out of the creeks, tell them that. But keeping dirt out of the creeks in the Ratherum prairie is much different than keeping the dirt out of the creeks in Hells Canyon, and that is the kind of site specificity that Jim was talking about. So it is not that we are against the project; it is that we want the concerns.

If the 144 million acres includes the town of Clarkston, Washington, where I live, are we going to look at 10th Street, where I live, as part of this project, or are we just looking at trees, rivers, fish and stuff? It just seems like it is big.

Mr. NETHERCUTT. It was a response to the Pacific Rivers Decision, my sense is, but did get beyond what was anticipated by that case?

Mr. HALLEY. I guess in answering your question in a nutshell is it has gotten to a point where it is going to proceed to an EIS, I assume, and we want to make sure that the concerns that we as working people have and the people that use the forest and live in the communities, that those concerns are addressed before it gets to an EIS and not afterwards.

Mr. NETHERCUTT. Mr. Brouha, you had a comment. I think I have gone too long with you gentlemen. I know the agencies were told that we would try to finish up by around 3:00, and I apologize to Mr. Thomas and Mr. Dombeck, because I know we are under pressure. If you have a comment, I would be happy to have it.

Mr BROUHA. The comment I would like to make in prefacing or discussing PACFISH is, again, as these are interim recommendations from the Eastside Committee, PACFISH was an interim recommendation, arbitrary and really not subject to local information. But within PACFISH, it provides for the use of local information where it is, in fact, better, where a watershed analysis has been done. So I couldn't agree more with Mr. Geisinger about that particular statement. You have got to use local information where it is better.

Mr. NETHERCUTT. In the Colville National Forest, my information is that they have looked at about 8 out of 60 watersheds. Do you think that is adequate to have a pattern for a determination and some finality with regard to what results might come out?

Mr. BROUHA. Well, as a generality, in responding, I would say that you have to have a representation across all the soil types. You are going to have a very different prescription on vernitics than you are on a besulpherized soil, and you have to have a representation of each of those types on the forest in order to come up with reasonable prescriptions.

Mr. NETHERCUTT. Gentlemen, thank you.

I wish we had more time. I would love to spend more time, but thanks so much.

Gentleman, if you all don't mind, we will take 5 minutes.

I think all of us will be more comfortable as we go into this last panel. I will try not to keep you much longer. I hate to interrupt your days.

We will stand in recess for 5 minutes.

[Recess.]

Mr. NETHERCUTT. The hearing will be back in order.

I am sorry to have kept you longer than the 5 minutes. I am delighted to have the next panel of witnesses: The head of the Forest Service, Mr. Thomas—Jack Ward Thomas—and the director of the Bureau of Land Management, Mr. Dombeck.

Welcome, gentleman. If you would identify yourselves.

Mr. MILLS. Tom Mills. I am director of the Forest Service Pacific Northwest Research Station.

Mr. MEALEY. Steve Mealey. I am the project manager for the Upper Basin.

Mr. NETHERCUTT. Welcome to all of you. We are happy to have your testimony in whatever order you would like to present it. If you would care to summarize that, it would be great.

Mr. THOMAS. I will give you a quick summary, just to tell you who these people are. My name is Jack Thomas. With me is Mike Dombeck, head of BLM; Martha Hahn, Idaho State director of the Bureau of Land Management, who is the leader of the Executive Steering Committee; Elaine Zielinski, BLM Oregon-Washington State Director; and Tom Mills Director, Pacific Northwest Station, are the people who make up the Executive Steering Committee. Steve Mealey is one of the project managers for the EIS teams. He is with the Upper Columbia Basin.

The Forest Service and BLM administer over half the lands within the basin, about 75 million acres. The project area encompasses 24 percent of the National Forest System land and 10 percent of the BLM-administered land in the entire Nation. Included are 48 National Forests and BLM districts and 74 unit plans within that project area.

Concerns are of a broad scale concerning forest and rangeland health, the listing of Snake River salmon, bull trout protection, species associated with old forest structure, and treaty and trust responsibilities to the American Indian tribes. We undertook this project to better understand these complex issues and their interrelationships and to make decisions that are most effectively and efficiently dealt with in this broad scale.

Now, in terms of organization and coordination, there is an Executive Steering Committee, a science integration team, and two EIS teams. The steering committee is composed of the Forest Service regional foresters and BLM State directors as well as directors from two forest research stations. The role is to oversee the project and consider all information and input from all available sources, review alternatives, and select future courses of action for the public lands that are under consideration.

The science integration team is composed of Federal scientists whose role is to assess conditions, evaluate available science, and document and transfer findings to managers and the public. EIS teams are composed of resource people from many disciplines in both agencies. Their role is to synthesize information and input from all available sources and to develop alternatives for consideration by management.

We have been working with other Federal agencies, State and county, and tribal governments, and Director Dombeck will address the benefits from those partnerships in a few minutes.

In July 1993, the President directed the development of a scientifically sound ecosystem-based strategy for Eastside forests in Oregon and Washington. In July 1994, the project was expanded to include the Upper Columbia River. The project actually began in January 1994 when the Director and I signed the charter for the project.

In May of 1994, we issued the draft PACFISH interim strategy for protection of Pacific salmon. In February of 1994 the PACFISH interim strategy was implemented for an 18-month period pending a period of long-term strategy. The interim strategy will be replaced with a long-term strategy developed through the project.

Also in May 1994, we issued an interim direction establishing riparian ecosystem and wildlife standards for timber sales, also called the “Eastside Screens” for National Forest in Eastern Oregon and Washington. That interim strategy is also intended to be replaced based on the results of the project.

In 1994 the Government was successful in the defense of a Northwest forest plan from a challenge made on the grounds that individual forest plan amendments were required rather than a multiforest approach. The court's ruling and the words are quite interesting in this regard. They found that, “given the current conditions of the forest, there is no way the agencies could comply with environmental law without language on an ecosystem basis.”

In August 1995, the Forest Service issued interim strategy direction for the INFISH Strategy for protection of bull trout and other inland native fish in response to a proposal to list bull trout as threatened. This interim strategy would be replaced again with a long-term strategy developed through the project.

The project includes a scientific framework for ecosystem management describing management principles and processes needed for assessment, decision, implementation, and monitoring. The assessment will discuss current resource conditions, trends, and possible outcomes of future management. The comprehensive information compiled will be invaluable for future planning across the basin. There are no decisions made in that document.

The science integration team has completed the scientific framework and is ready to be published. Most of the documents for scientific assessment have undergone peer and policy review and are in final editing.

Two EISs are being developed to address restoration and maintenance of long-term ecosystem health for those issues that can best be dealt with at the broad regional scale.

The Science Integration Team will perform an evaluation of effects of implementing various alternatives to be used by the EIS teams in describing effects in those documents. We expect to release the framework in June, the scientific assessment and evaluation of alternatives in August, and we are planning to release the draft EISs in August. We are planning for a comment period of at least 90 days, ending in late fall. The final EISs would be completed in the spring of 1997. Records of Decision would follow soon thereafter.

The Forest Service and BLM have found through experience in case law that many natural resource and community-related issues currently faced cannot effectively be resolved solely through forest-by-forest and district-by-district planning.

The EIS Records of Decision are needed to: One, address issues which transcend National Forest and BLM district boundaries such as forest health, aquatic health, and related cumulative effect and viability for species with broad range; two, provide a long-term management direction to replace interim PACFISH and Eastside screens and INFISH strategies; three, provide information to amend up to 74 Forest Service and BLM plans for issues that are basin-wide in scope; last, complete consultation on area-wide amendments under the Endangered Species Act and Fish and Wildlife Service and National Marine Fisheries Service to facilitate project level consideration.

Decisions will be focused on broad-scale issues and may amend but not replace—not replace—local management plans. Regional foresters and State directors will review the RODs against their individual management plans for consistency in decision or direction found in respective RODs. When there are inconsistencies, forest and district plans will be amended.

Many decisions are still most appropriately made at local levels, and each administrative unit will continue planning at that level. Implementation will occur locally. There are some private landowners in the basin who fear that the project puts private property and water rights at risk. Resource decisions made with full public participation will apply only to lands—only to lands—administered by the Forest Service and the BLM, not State and private lands.

Some believe that the project will not go far enough to assure adequate resource protection. Others believe the project will result in unnecessary restrictions on resource use. We believe that ensuring that these lands are ecologically sound is the best way, perhaps the only really feasible way, to provide a sustainable flow of a variety of resources to address the various desires of the public.

We believe that in the long run the project will save money and produce better, more defensible decisions. If instead, we did up to 74 separate plan amendments and consultations, there would be a greater likelihood of inconsistent direction and assessment of cumulative effect, leading to increased risk of litigation.

Most decisions will focus on broad or regional issues, with solutions stated as goals, objectives, and guidelines, in contrast to site-specific, finer-scale decisions more appropriately made at local levels.

The deciding officials for the Records of Decision associated with the two EISs are the Forest Service Regional Foresters and BLM State Directors for the project area. Site-specific, fine-scale land management decisions implementation will be accomplished at the local level.

The benefits will be: One, sustainable flows of goods and services on the public land with potential benefits to local economies; two, more effective involvement of the public, Indian tribes, and State and local government in planning and decision-making processes;

three, more effective analysis of cumulative effect; four, replacement of interim management strategies such as INFISH, PACFISH, and Eastside screens; five, more consistent and favorable regulatory agency consultation; six, provide information to amend up to 74 Forest Service and BLM plans for issues that are basin-wide; seven, increase defensibility against broad-scale legal challenge.

We are committed to managing the National Forest and BLM lands in ecologically responsible, economically viable, and socially acceptable ways for the benefit of present and future generations.

[The information follows:]

FINAL

STATEMENT OF
JACK WARD THOMAS, CHIEF
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Interior Subcommittee
Appropriations Committee
United States House of Representatives

Oversight Hearing Concerning
The Interior Columbia Basin Ecosystem Management Project

May 5, 1996

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to discuss the status of the Interior Columbia Basin Ecosystem Management Project. Joining Director Dombeck and me are members of the leadership team and the project manager for the Upper Columbia River Basin Team. Martha Hahn, Idaho State Director of the Bureau of Land Management is the Leader of the Executive Steering Committee. Elaine Zielinski, Oregon/Washington State Director of the Bureau of Land Management and Tom Mills, Director of the Forest Service Pacific Northwest Research Station are members of the Executive Steering Committee. Steve Mealey is Project Manager for the Upper Columbia Basin Environmental Impact Statement Team.

The Project

Mr. Chairman, as you know, the Interior Columbia Basin Ecosystem Management Project (Project) is managed by the Forest Service in the Department of Agriculture and the Bureau of Land Management (BLM) in the Department of the Interior.

The 144 million acre Project Area includes lands east of the Cascade Mountain Crest in Oregon and Washington, and the portions of the interior Columbia River Basin in Idaho, western Montana, parts of western Wyoming, and northern Utah and Nevada. The Forest Service and the BLM administer over half the lands within the Basin -- approximately 75 million acres.

To give you an idea of the significance of the Project to our agencies, the Project area encompasses 24 percent of the National Forest System lands and 10 percent of the BLM administered lands in the nation. In terms of administrative units and planning implications of the Project, there are 48 National Forests and BLM districts and 74 unit plans within the Project area.

In July 1993, President Clinton directed the Forest Service to develop a scientifically sound, ecosystem-based strategy for Eastside forests in Oregon and Washington. The Project was developed to respond to heightened concerns about resource conditions, keeping in mind the significance that changes in resource conditions and management may have on local communities. These concerns are of broad scale, including forest and rangeland health, the listing of Snake River salmon, bull trout protection, species associated with old forest structure, and treaty and trust responsibilities to American Indian Tribes. We undertook this Project to better understand these complex issues and their interrelationships and to make decisions on those issues that are most effectively and efficiently dealt with at this broad scale.

Organization

Let me briefly describe how the Project is organized: There is an Executive Steering Committee, a Science Integration Team, and two interdisciplinary Environmental Impact Statements (EIS) teams. The Executive Steering Committee is composed of Forest Service regional foresters and BLM state directors, who have regional responsibility for planning and resource management, as well as directors from Forest Service Research Stations. The role of the Steering Committee is to oversee the functioning of the Project. The managers on the Steering Committee will also consider all information and input from all available sources, review alternatives, and select future courses of action for the public lands they manage.

The Science Integration Team is composed of Federal scientists. This team has been gathering information and perspectives from the broader scientific community. The role of the science team is to assess conditions, critically evaluate all available science, and document and transfer findings to managers and the public. The Eastside EIS Team and the Upper Columbia River Basin EIS Team are composed of resource people from many disciplines and both our agencies. Their role is to synthesize information and input from all available sources, develop alternatives, and recommend future courses of action to managers.

We have been working with other Federal agencies, State, county and tribal governments. Director Dombeck will address the benefits derived from these partnerships in a few moments.

History

Let me briefly outline the chronology of the Project and other major efforts underway that affected it.

In July 1993, President Clinton directed us to develop a scientifically sound, ecosystem-based strategy for Eastside forests in Oregon and Washington. In July 1994, the Project was expanded from the Eastside of Oregon to include the Upper Columbia River Basin EIS.

The Project actually began in January of 1994, when the Director of the BLM and I signed the charter for the Project. During the same period, concerns about declines in salmon habitat and populations prompted work on a strategy to protect them. In May 1994, we issued the draft PACFISH interim strategy for protection of pacific salmon. In February 1995, the PACFISH interim strategy was initiated for an 18-month period, pending completion of a long-term strategy from this Project. The interim strategy will be replaced with a long-term strategy developed through this Project.

Also in May, 1994, the Forest Service issued interim management direction establishing riparian, ecosystem and wildlife standards for timber sales, also known as "eastside screens" for the National Forests of eastern Oregon and Washington. This interim strategy is also intended to be replaced by a long-term strategy based on the results of the Project.

In 1994, the Government was successful in defending the Northwest Forest Plan from challenge on the grounds that individual Forest plan amendments were required rather than a multi-forest approach. The court found that "Given the current condition of the forests, there is no way the agencies [Forest Service, Bureau of Land Management, Fish and Wildlife Service and National Park Service] could comply with environmental laws without planning on an ecosystem basis."

In August 1995, the Forest Service issued interim direction for the Inland Native Fish Strategy (INFISH) for protection of bull trout and other inland native fish in response to the proposal to list place bull trout as an endangered species. This interim strategy will be replaced with a long-term strategy developed through the Project.

Project Products and their Status

The Project includes a Scientific Framework for ecosystem management describing ecosystem management principles and processes needed for agency assessments, decisions, implementation, and monitoring. The Scientific Assessment will discuss current resource conditions, trends, and possible outcomes of future management. It will assess the ecologicical, biophysical, social, and economic components of ecosystems related to management of lands administered by the two agencies. The comprehensive information compiled in the Scientific Assessment will be invaluable for future planning efforts across the Basin. No decisions are made in this document.

The Science Integration Team has completed the Scientific Framework and it is ready to be published. Most of the documents for the Scientific Assessment have been completed the process of peer and policy review, and are in the final editing stage.

Using information from the Framework and Assessment, along with other sources, two Environmental Impact Statements (EIS's) are being developed to address the restoration and maintenance of long-term ecosystem health for those issues that can best be dealt with at the broad regional scale. We are striving to do this in a manner which provides sustainable levels of goods and services from National Forest System and BLM lands.

Finally, the Science Integration team will perform a Scientific Evaluation of the effects of implementing the various alternatives, which will be used by the EIS teams in describing potential effects in the EIS documents.

To summarize, we expect to release the Framework in June and the scientific assessment and evaluation of alternatives in August. We are planning to release the Draft EIS's in August. Following release of the Draft EIS's, we are planning a comment period of at least 90 days that would end in late fall. Response to public comments and preparation of the Final EIS's would be completed in the spring of 1997. Records of Decision would follow soon afterwards.

What's Next: the EIS and ROD Process

The Forest Service and the BLM have found, through experience and case law, that many of the natural resource and community-related issues we currently face cannot effectively be resolved through forest-by-forest or district-by-district planning. Ecosystem health problems can be more successfully resolved by using the best available science to design plans dealing with these overarching issues. A basin-wide perspective allows the agencies to develop and prioritize goals among their various administrative units (National Forests and BLM districts) that would not be possible if each unit develops independent plans.

We believe the EIS's and Records of Decision are needed to:

- Address issues which transcend National Forest and Bureau of Land Management District boundaries, such as forest health, aquatic health and related cumulative effects, and viability for those species with broad ranges.
- Provide long-term management direction to replace interim PACFISH, Eastside Screens, and the Inland Native Fish strategies.
- Provide information to amend up to 74 Forest Service and BLM plans for issues that are basin-wide.
- Complete consultation on the broad area-wide amendments under the Endangered Species Act with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to facilitate project level consultations.

Decisions based on these EIS's and documented in the Records of Decision will be focused on broadscale issues and may amend -- but not replace -- local management plans. The ROD's will amend national forest and district land and resource management plans to incorporate the direction developed in the EIS's into Forest Service and BLM on-going management activities.

Regional Foresters and State Directors will review the ROD's against their individual management plans for consistency with decisions/direction found in the respective ROD. Where there are inconsistencies, forest and district plans will be amended.

Many decisions are still appropriately made at the local level and each administrative unit will continue planning at that level. Implementation will occur locally.

Concerns People Have About the Project

We are fully aware of the concerns expressed by members of the public concerning the Project and I would like to address a few of them briefly.

Members of groups including public land livestock grazing interests, agribusiness, forest products industry, and private land owners in the Basin fear that the Project puts private property and water rights at risk, especially as related to threatened and endangered species. The intent of the Project is not to affect private property or water rights. Resource decisions made with full public participation will apply only to lands administered by the Forest Service and the BLM, not state or private lands.

Some believe that the Project will not go far enough to assure adequate resource protection, with associated losses to local and regional economies for resource uses related to commercial and sport fishing, as well as various recreational activities. Others believe the Project will result in unnecessary restrictions on resource use that will reduce logging and grazing on public lands, with associated economic impacts. We believe that ensuring these lands are ecologically sound -- is the best way, and perhaps the only way -- to provide a sustainable flow of a variety of resources to address the various desires of the public.

There is a perception that the Project has created a redundant layer of costly planning, with no prospects for efficiencies or savings in future planning. We believe, however, that in the long run, the Project will save money. We also believe it will be less time-consuming to accomplish the consultations associated with those amendments with other Federal agencies and, in the long run, will produce better decisions.

With amendments and consultations applying appropriate direction at appropriate scales across jurisdictional boundaries, there will be more consistent direction for issues of scale, disclosure of cumulative effects, and greater probability of legal sufficiency of decisions. If, instead, we did up to 74 separate plan amendments and consultations, there would be a greater likelihood of inconsistent direction and assessment of cumulative effects, leading to increased risks of litigation and injunctions. The Forest Service and the BLM might be more vulnerable to the allegation of not responding to new information.

We are sensitive to concerns of local people that their needs will be overlooked or their influence diminished if planning is done at a broader scale. Most decisions coming out of the Project will focus on broad or regional issues, with solutions stated as goals, objectives, and guidelines -- in contrast to site-specific, fine scale decisions more appropriately made at the local level. The Project addresses broad issues that cross forest and district boundaries.

The deciding officials for the Records of Decision associated with the two EIS's are the Forest Service Regional Foresters and BLM State Directors from the Project area. These Federal managers live in the areas involved, are cognizant of local concerns, and are responsible for planning and resource management in the geographical area. If additional amendments to forest and district plans are needed, they will be accomplished at the local level. Site-specific, fine scale land management decisions and implementation will be accomplished at the local level.

Conclusion

As an ecologist, I have spent much of my career studying ecosystems and how they work. These systems are incredibly complex, and although we will never understand them completely, to assure sustainability, we must understand them as much as possible.

I believe that large scale ecosystem analyses like the Interior Columbia Basin Ecosystem Management Project -- that incorporate interdisciplinary studies to examine the interactions of the physical, biological, social and economic aspects of an ecosystem -- are a good way to assure the sustainability of ecosystems that the Federal Government manages.

I am convinced that the more we know about these interactions, the wiser our management decisions will be.

I believe that the benefits of the Project are:

- Resilient ecosystems and sustainable flows of goods and services from the public land with potential benefits to some local economies.
- More effective involvement of the public, Indian tribes, and state and local government in our planning and decision-making processes.
- More effective analysis of cumulative effects.
- Replacement of interim management strategies such as INFISH, PACFISH, and Eastside screens.
- More consistent and favorable regulatory agency consultations.
- Provide information to amend up to 74 Forest Service and BLM plans for issues that are basin-wide.

- Increased defensibility against broad-scale legal challenges.

In the long run, this approach should lead to more effective management because we will understand how factors interact in a broader context, management decisions can be made with greater consistency and uniformity.

We are committed to managing the National Forests in ways that are ecologically responsible, economically viable, and socially acceptable for the benefit of both present and future generations.

This concludes my statement. I would be happy to answer your questions.

Mr. THOMAS. And I think Mike is next here.

Mr. NETHERCUTT. Thank you very much.

Mr. Dombeck.

Mr. DOMBECK. Well, thank you, Congressman Nethercutt, for the invitation to testify.

I will give a brief summary of my statement, and I will ask that the entire statement be placed in the record.

Mr. NETHERCUTT. Without objection, it will be.

Mr. DOMBECK. As Chief Thomas has indicated, about 27.8 million acres, or 10 percent, of the Bureau of Land Management managed lands in this Nation are included in this project area. The purpose of this project is to develop a broad-scale management framework for Federally administered lands.

The records of decisions for the EISs will not make decisions on private lands. I want to reiterate that. Nor will they impose regulations on private lands or non–Federally administered lands.

I want to emphasize and spend most of the time talking about our sincere interagency effort to involve the public in cooperatively developing this long-term management direction for the Federally-managed lands of the Columbia River Basin.

You have heard some concern earlier today about the extent of local involvement on this project, and I would like to emphasize what has been done. In fact, what has been done is an unprecedented effort and exercise in involving the public in an open process since the beginning.

We have had numerous public meetings and briefings throughout the Columbia Basin, and that will continue. More than 120 project briefings, workshops, and scoping meetings have been conducted over the last 2 and a half years. Monthly update sessions provide opportunities for the public to follow the progress of the project and interact with science and EIS team members. Between 75 and 90 people, representing a wide variety of individuals, groups, and organizations, have actively participated and interacted in a positive and constructive atmosphere.

Special emphasis has been placed on working with the States, the 100 counties, 22 tribal governments, and the Resource Advisory Councils, or provincial advisory committees. Regular newsletters, significant updates, and meeting notices are mailed to over 5,000 people and interested organizations on a regular basis.

As Commissioner Howard has indicated, the Eastside Ecosystem Coalition of Counties is composed of the 100 counties in Washington, Oregon, Idaho, and Montana. They have closely tracked the project and continue to take an active role in reviewing and commenting on the various draft documents prepared for the project. Our feeling is that this could provide a new and positive working example of how agencies can more effectively incorporate the concerns of local communities and citizens in our planning efforts.

This has been a sustained interagency effort between BLM and the Forest Service from the beginning. Throughout the effort, we have coordinated with other bureaus in Interior and other agencies including the Bonneville Power Administration, the Army Corps of Engineers, the National Marine Fisheries Service, and the Environmental Protection Agency. We are working together at this point in the process.

This upfront investment of time and energy will result in expedited consultation with the Fish and Wildlife Service, and the National Marine Fisheries Service and speed up the implementation of on-the-ground activities.

The interagency steering committee that Jack mentioned is an example of integration that is occurring, removing old communication barriers and allowing our agencies a vast improvement in the level of efficiency and cooperation. We anticipate that the local public will greatly benefit from the results of this project over the long haul.

I would like to give you one example of a vision, or a model, of how we see some successes working at the local level, and the decision space that this kind of exercise will provide.

In the Trout Creek Mountains in southeastern Oregon, the issues at stake were a Federally-listed fish species, Lahontan cutthroat, outstanding wildlife and back-country values, extensive cultural resources, over 100 years of commercial livestock grazing, and perennial streams with high value riparian areas. Through an active participative process BLM, the Oregon Department of Fish and Wildlife, environmental groups and conservation groups like Oregon Trout, the Oregon Watershed Improvement Coalition, the Izaak Walton League, the Oregon Wildlife Federation, and Oregon Cattlemen's Association, and local ranchers a plan was developed to protect these fish populations; it was developed out of court.

The land values and the health of the land has increased. We have now survived nonjeopardy opinions, and Doc Hatfield phoned me a couple of weeks ago to tell me that the Lahontan cutthroat numbers are up from 10,000 a couple of years ago to 40,000 today, even with the dry conditions that we saw a few years ago. And I see this as a model of where we are going in providing decision space to work in, in a cheap and effective manner.

And I think with that I will stop, and we would be happy to answer any questions you have.

[The information follows:]

MICHAEL P. DOMBECK

Acting Director, Bureau of Land Management
Department of the Interior

before the
United States House of Representatives
Committee on Appropriations
Subcommittee on Interior and Related Agencies

May 7, 1996

Mr. Chairman, members of the Subcommittee, thank you for inviting me to testify before your subcommittee on the Interior Columbia Basin Ecosystem Management Project (Project). I am pleased to be here with Chief Thomas to share with the Committee our continued efforts to respond to significant resource issues with local publics and interests.

I would like to add to Chief Thomas's statement by offering BLM's perspective in the project, and discussing the various partnership and community involvement efforts that have been an ongoing part of this effort.

As Chief Thomas indicated, approximately 27.8 million acres, or 10% of BLM lands in the nation are included in the project area. The project area includes public lands that lie within the Columbia River Basin in eastern Oregon and Washington, western Montana, western Wyoming, northern Nevada and Utah-- an area the size of France. These lands are ecologically diverse -- landscapes range from Idaho mountains and wilderness, to Snake River Plains, to the high desert of southeastern Oregon; it encompasses over 100 counties and several large tribal reservations (Yakima, Warm Springs, Nez Perce, Blackfoot); and has a population density (11 per sq. mile) that is about a third of the U.S. average

The purpose of this project is to develop a broad scale management framework for federally-administered lands. The Records of Decisions for the Environmental Impact Statements (EISs) will not make decisions on private lands or impose regulations on private lands or non-federally administered lands. This project is a sincere interagency effort to involve the public in cooperatively developing a long term management direction for federally-administered lands in the Columbia River Basin.

Total estimated costs of the Project are $33 million. BLM expenditures have amounted to about $6 million, or 27% of what has been budgeted so far. The project will allow BLM to effectively establish desired landscape patterns and general direction for management of habitat for threatened and endangered species that require integrated management across broad landscapes. These broad-based strategies will (1) help avoid further listings, (2) promote recovery of listed and candidate species, and (3) promote efficient section 7 ESA consultation.

Benefits from this project will also be realized on the 48 individual FS and BLM units across the Interior Columbia Basin by planning at the broad scale. There will now be a more consistent and coordinated approach to managing the resources, which will save the taxpayers money in the long-run. These benefits and economies of scale do not mesh with what seems to be a perception of the agencies creating a redundant layer of costly planning, with no prospects for efficiencies of savings in future planning.

I understand that there is some concern about the extent of local involvement in this project. I would like to emphasize that we have gone out of our way to make this an unprecedented open public process since the beginning:

- Numerous open public briefings and public meetings have been held, and continue to be held throughout the Basin.

- We have provided open access to documents. This has allowed the public to give input to the science processes and EIS development. More than 120 public project briefings, workshops, and scoping meetings have been conducted over the last two and a half years.

- Monthly update sessions provide opportunities for the public to follow the progress of the project and interact with both Science and EIS team members.

- Between 75-90 people, representing a wide variety of individuals, groups, and organizations have actively participated and interacted in a positive and constructive atmosphere. Special emphasis has been placed on working with the states, 100 counties, 22 tribal governments, and Resource Advisory Councils (RACs) or Provincial Advisory Committees.

- Regular newsletters, significant updates, and meeting notices are mailed to over 5,000 people and interested organizations on a regular basis. Information has also been made available to the public using: electronic library, satellite downlink, Internet homepage, toll-free number, and information centers.

The scientific assessment reviewed broad scale resource, economic, and social conditions. Rangeland health is a key issue for BLM and alternatives in the draft EISs will include standards for rangeland health and guidelines for grazing management. Information from the scientific assessment has been provided to the RACs, and standards and guides proposed by the EISs will be subject to consultation with the RACs. The RACs have been actively involved in helping the BLM develop rangeland health standards and guidelines for the Project area. The RACs will also play a critical role in reviewing and refining them as necessary to meet local conditions on BLM administered lands.

The Eastside Ecosystem Coalition of Counties, composed of county associations from Washington, Oregon, Idaho and Montana have closely tracked the Project and continue to take an active role in reviewing and commenting on various draft documents prepared for the project. Our feeling is that this could provide a new and positive working example of how agencies can more effectively incorporate the concerns of local citizens on our planning efforts.

Local control and influence are often perceived to be weakened when lawsuits are filed by regional or national organizations challenging agency land use plans or activities tiering to land use plans. One of the reasons BLM and the Forest Service initiated the Project was because local BLM and Forest Service plans and activities were becoming increasingly vulnerable to litigation which could create a crisis in public land management, such as occurred in Western Oregon and Washington in recent years. We sincerely believe that the broad-scale regional EISs which are scientifically based will provide much stronger legal protection for our local planning documents and environmental analysis. Illustrating our concern is a recent lawsuit filed on BLM lands in Eastern Oregon and Washington which could halt all juniper management activities as well as land exchanges, timber harvest and road building activities in old growth forests until the Project is completed. Specifically, the plaintiffs are arguing that all of the activities should be enjoined until the project is completed.

This has been a sustained interagency effort between the BLM and Forest Service.

Throughout the effort, we have coordinated with other bureaus in Interior and other agencies including the Bonneville Power Administration, Army Corps of Engineers, National Marine Fisheries Service and the Environmental Protection Agency. We are working together at this point in the process. This up-front investment of time and energy will result in expedited consultation with the Fish and Wildlife Service and National Marine Fisheries Service and speed up the implementation of on-the-ground activities.

An interagency steering committee composed of BLM State Directors and Forest Service Regional Foresters and Research Station Directors has provided executive oversight to the project. The Science and EIS teams are composed of representatives of Forest Service, BLM and other agencies. This is truly the most integrated interagency effort ever undertaken in the region. This integration has helped remove old communication barriers and allowed a vastly improved level of efficiency in work between cooperating agencies.

We anticipate that the local public will greatly benefit from the results of the project over the long term. Examples of these benefits include: increased efficiency in work between agencies now that many of the old communication barriers have been removed, reduction in conflicting management direction between adjacent public lands administered by the BLM and National Forests which had often confused the public in the past, and more integrated and open public involvement in local planning efforts between the agencies.

An example of a way to implement a broad scale plan such as Project at the local level is the nationally-recognized Trout Creek Mountains Working Group in Oregon. Issues at stake were similar: a federally-listed fish species (Lahontan cutthroat trout), outstanding wildlife and back country values, extensive cultural resources, perennial streams with high value riparian areas, and over 100 years of commercial livestock grazing. Through the active participation of the BLM, Oregon Department of Fish & Wildlife, environmental groups (Oregon Trout Unlimited, Oregon Watershed Improvement Coalition, Izaak Walton League, and Oregon Wildlife Federation), industry representatives (Oregon Cattlemen's Association), and local ranchers, a plan was developed that protected the fish populations and other land values while providing for a viable livestock operation. The plan was completed by agreement, was validated by the U.S. Fish & Wildlife Service as sufficient to protect the Lahontan trout populations, and has been sustained in the courts.

As we implement the decisions and strategies that come out of the Project EISs, we will continue strategies and processes that collaboratively involve the public. These will include providing access to our decision making and analysis processes, developing partnerships, and working collaboratively with citizens, local, state, and other federal agencies to address common issues. The recent Seventh American Forest Congress illustrates how important and effective inclusive public processes can be.

Mr. Chairman, that concludes my opening statement and I welcome your questions.

Mr. NETHERCUTT. Well, thank you very much for coming and for listening to the other witnesses.

You and I and all of us have had some discussions in prior testimony regarding this project in this subcommittee. I hope you understand our motivation in trying to strike a balance, from the private sector side and from those that I represent in the west.

Part of the reason for having this hearing was to have a full explanation of what has happened thus far, what can we expect in the future, and get some assurances for the record of what the study will and will not do and what your intentions are or are not.

So from that standpoint, I am grateful that you are here. I think the subcommittee—I am happy to speak for them in saying I think they are glad you are here too, because it was a matter of some discussion in the latest budget go-around.

Just for the record's information and for mine, I want to clarify some facts surrounding the project. And I heard you, Jack, talk about the time lines, and I want to make sure I get it right and that the record is clear. When do you anticipate releasing the drafts—the draft EISs for public comment? Did you say August?

Mr. THOMAS. I have got to look it up—oh, there is the time line.

Mr. DOMBECK. Elaine—why don't we let one of the local managers that really know what is going on to explain it.

Would you please do that?

Ms. ZIELINSKI. Yes. My name is Elaine Zielinski.

The drafts would be in August of 1996, and then we would have the standard 90-day review. So that is reflected there. Then we go ahead and prepare the finals between November and March of 1997.

Mr. NETHERCUTT. So you anticipate the final EIS would be out in March of 1997?

Ms. ZIELINSKI. April of 1997. By the time we get it printed, April of 1997. Then the record of decision in May 1997 and implementation about 30 days after that, which would be June of 1997.

Mr. NETHERCUTT. Let's see. June of 1997. So when would the interim plans be actually amended?

Ms. ZIELINSKI. The record of decision would actually amend the plans.

Mr. NETHERCUTT. Okay.

Ms. ZIELINSKI. As part of the process that we have to go through.

Mr. NETHERCUTT. Will all the management plans be amended by that time? Or will you have to go beyond that in terms of looking at each of the management plans?

Ms. ZIELINSKI. Each of the management plans would be looked at individually when the record of decision comes out.

Mr. NETHERCUTT. Okay.

Ms. ZIELINSKI. To see how consistent they are and what kinds of changes would result from the record of decision.

Mr. NETHERCUTT. And how long would that implementation period take, in your judgment?

Ms. ZIELINSKI. I can't speak for the Forest Service, but I think it would really vary, depending on how much the existing plans are consistent with what comes out of this document. So it would vary widely and some of it might not take very long at all.

We wouldn't have to do any kind of formal documentation for the BLM plans other than what is in there. That is what I anticipate in Oregon. So some of them could be as little as 3 or 4 months.

Mr. NETHERCUTT. What is the longest period you would expect it would be?

Ms. ZIELINSKI. I would hesitate to speak on that because I think the longest would be Forest Service.

Mr. MEALEY. We anticipate up to 2 years.

Mr. NETHERCUTT. So 1999 roughly?

Mr. MEALEY. Possibly. We are talking about taking broad-scale decisions and applying those to direction currently in forest plans and then doing subsequent analysis that would be directed at local level decisions and completing that analysis to talk about the implementation implications.

Mr. NETHERCUTT. So in the meantime the interim plans would be in place?

Mr. MEALEY. Yes, let me give an example.

Mr. NETHERCUTT. Okay.

Mr. MEALEY. Some kind of direction would be amended immediately. Let's take the Aquatic Conservation Strategy, for example, things that we think about as PACFISH or INFISH. Depending on the alternative that would be selected, and you know there are seven, and each of those seven alternatives treat the Interim Conservation Strategy issue differently. Depending on which one of those alternatives were selected, the direction in that selected choice would amend the existing plans and that would happen immediately.

So let me give a further example.

If the alternative six, just to pick one, were selected, that would have specific refinements to the interim strategies. One would be to reduce the amount of dependency on those interim measures and depend more heavily on watershed analysis. So that would happen when the Record of Decision was made.

Mr. NETHERCUTT. At least those who talk with me about this are concerned about having those interim strategies in place for a long period of time.

In other words, they are dissatisfied with the interim strategies. They are concerned with time delays that may well be looking at 1997 or 1998 or 1999, whatever the case may be. I do understand your qualification in your testimony. There is frustration out there with regard to those interim strategies. How would you all intend to address that frustration? What do you need from the Congress? More money? More manpower? You know, what is it, if anything, if it is that simple?

Mr. MEALEY. Well, one of the things that we would need to have would be an understanding that the consultation applying to those interim strategies would be extended some. That would be important.

Another issue would be simply an agreement that as we work toward a final alternative, we would develop implementation strategies that would assure, when we got there, we could move quickly in moving toward the direction indicated. Implementation is something that we would be thinking more about as we move toward a final decision.

Mr. NETHERCUTT. And your hope is that there would be agreement on the refinement essentially of that implementation plan. Is that it?

Mr. MEALEY. Yes. And I want to say that, you know—and this point has been made many times today—that the Forest Service and the Bureau of Land Management have been working very closely with the National Marine Fisheries Service and the Fish and Wildlife Service on the strategies associated with all of those alternatives, so that when we reached project implementation we would have consultation agreements hopefully in place or be moving quickly in that direction so we could break through a lot of the barriers that have been in place in the past.

Mr. NETHERCUTT. I hope you are right, because one of the hazards of this process is that you may have several agencies with the answer, and, who is going to——

Mr. DOMBECK. Just to add to that, to try to frame that conception, we will let you know where Jack and I and other agencies are headed. What we really need to strive for is a parallel process versus a serial process like the one we are coming out of. In some areas, like with the salvage program and other things, we made that leap where the Fish and Wildlife Service is in day one.

Sort of the old philosophy, you build it right the first time rather than review it and review it and review it. This is our basic goal in achieving this to do it right the first time, to make it much more efficient from an agency standpoint, get us out of litigation gridlock and keep us out of litigation gridlock.

Mr. NETHERCUTT. Are you convinced that this approach will assure no litigation gridlock? Is it your hope?

Mr. DOMBECK. It is our hope.

Mr. NETHERCUTT. Certainly it is.

Do you have any recommendations to the committee as to how we might have a greater expectation of no gridlock? In other words, can we have some assurance?

Mr. THOMAS. There are two things. One is, can you stop from getting sued? No. Can you have a better chance of winning? Yes. And we are winning considerably more now than we are losing. In fact, it gets to be rather rare when we lose now. That is the——

Mr. NETHERCUTT. Careful.

Mr. THOMAS. It is. I will give you the batting averages. They have changed dramatically. We can't assume we won't get sued, but we can try our best to make sure, looking at previous court rulings, that we are tracking down a process that takes care of those things over which we have lost suits in the past.

Now, the replacement of interim guidelines will come as quickly as we can get them, but those interim guidelines are the only things that are keeping us from being shut down now. I mean, we didn't wake up one morning and decide, gee, imposing interim guidelines that is a wonderful idea. We were looking at being locked down.

We would like to move. But I want to make one thing clear. This "one size fits all" keeps coming up.

But some people, perhaps most, are concerned about how we will apply the general principles site specifically.

Obviously, you would not put the same management strategy on a BLM grazing allotment as you would put on the Idaho batholith in northern Idaho. That would be patently ridiculous. I know that people fear it.

Mr. NETHERCUTT. They do.

Mr. THOMAS. But I will tell you, as a scientist, I think that to apply general principles without site-specific adjustments would be indefensible. We will see how it goes. We have all sorts of arrangements, but we have to take the principles that you want to achieve, think about how to achieve them, and then move it directly to the ground. That is where you don't get "one size fits all."

One other point—and I will bring it up now—is, I understand clearly what you guys were talking about with your attempts of legislating. In one sense, I am certainly glad you did not succeed with the $600,000, which would have essentially left us hanging and would have assured that we got our heads chopped off. Other parts of it, we understand thoroughly what you were talking about.

We also have made an unprecedented attempt to involve the public. That will continue now and intensify at local levels. We will probably even try some new approaches to public input. The ones that we have used in the past have been extensive, but they ended up polarizing people rather than focusing.

There may be some lessons learned from the recent forestry conference and other things about how we might begin to focus toward a more central effort, and we intend to try those. But that input, I suspect, at local levels will be more intense than any we have ever tried before.

I mean, we are certainly amenable to your suggestion. If you happen to be an expert in public involvement, you get elected to Congress. Maybe you know how.

Mr. NETHERCUTT. I guarantee, I get a lot of opinions.

Mr. THOMAS. One thing I want to be clear, so that no one is misled: we have cooperated and will continue to cooperate more than we ever have before, with counties, and States. We cannot give away the decision responsibility. It is ours by law. I can't by law turn around and say anything else. But we can do a better job and a more detailed job with full public involvement and cooperation and partnership with the counties, but in the end we are responsible for the decisions.

Mr. NETHERCUTT. I understand that, and I think your comments are well taken because, as you know, we have talked here before about the need for public support for what you do, and to the extent you can enhance that by your actions and by your openness, I think that is going to pay big dividends downstream, so to speak, because the last thing you want is to have the public angry at you and feeling shut out of the process or feeling that they are, not whether they are or not, but feeling that they are.

So I think it is good policy to do what you are telling us you are wanting to do.

Mr. THOMAS. I would like to make one more comment so I don't forget to make it. There is obviously also the concern that came up, this vision of some bureaucrat sitting behind a desk in Washington, D.C., making a decision. Well, I don't intend to do that. I am sure that Mr. Dombeck does not intend to do that.

And I think if you question these folks, they would tell you that they have been told to do nothing in the world except "get the job done" and that the decision authority rests there, as I described it. It will continue to rest there. Somebody can appeal it, but the local managers is where the decision authority rests, and that is where it will continue to stay.

Mr. NETHERCUTT. I think that is also advisable, because the more you involve people, and with the people who are going to make the decision and then the decision is made, I think people understand the difficult situation rather than saying, "Well, it's not my fault; it's some gentleman or lady back in Washington."

Mr. THOMAS. There is a flip side to that. Everybody says they want that done, but if they don't get the decision they want, they immediately try to get it overruled.

Mr. MEALEY. Much has been said about public involvement, but I wanted to add a technical point. That is, that when we kicked the project off in the Upper Basin, public involvement in a two or three State area is very difficult, as you might expect, with so many towns.

We used satellite technology and a downlink broadcast from Boise State University into some 26 different towns. A thousand people participated. And out of that, we had about 10,000 comments and promised that for those towns that were uncomfortable with that process, that wanted us to come face to face, we would come anywhere, any time.

We had one request, and that was in Coeur d'Alene, and we followed up, and now maybe some people didn't want us to come just because they didn't like the news. But, frankly, there was only one follow-up. And we said a lot about the pride we have in our partnership with the Coalition of Counties. So we feel very good about that.

Mr. NETHERCUTT. Good.

Let me talk with you about cost. I think, Mr. Dombeck, you said that you spent $5.7 million. I am looking at my notes here, that your agency spent about $5.7 million to date. Is that correct?

Mr. DOMBECK. Well, that will be through the end of fiscal year 1996.

Mr. NETHERCUTT. Okay. How about the Forest Service? Do we know how much?

Mr. THOMAS. Through the end of fiscal year 1996, about $24.7 billion.

Mr. NETHERCUTT. 24 million?

Mr. THOMAS. Sorry. I think in big numbers.

Mr. NETHERCUTT. 24 point how much?

Mr. THOMAS. Seven.

Mr. DOMBECK. Let me correct that to 5.9 from 5.7.

Mr. NETHERCUTT. Okay.

Mr. NETHERCUTT. Are those numbers including the funds for personnel from the accounts of individual forest superintendents? That is all that has been spent? Or is there more agency money some other place?

Mr. MILLS. It is true that there are some other places where some salaries are still carried by the originating unit, including some of the salaries associated with data collection that was necessary to underpin the assessment, but dollars actually allocated to the project for staff that is full-time there, for the equipment there, that covers the vast bulk of it. But there are some additional salaries contributed at the local units for some data collection, occasionally for detailers.

Mr. NETHERCUTT. Do you have any estimate? Ten percent?

Mr. MILLS. No, I don't. It would just be a wild guess.

Mr. NETHERCUTT. Okay. Are you going to need any money beyond fiscal year 1996? Are you asking—my memory is you didn't request anything in fiscal year 1997.

Mr. MILLS. We do have an estimate right now, Congressman, of $2.6 million in 1997 to deal with that comment development of the final EIS, the science support of that final EIS and the ROD. Although I would have to acknowledge that there is a little uncertainty and that should the comment period be extended beyond 90 days, and for an area this size a request to extend it would not be unusual—then the costs would be greater. But right now our estimate is $2.6 million, $1.85 million for the Forest Service and $800,000 for BLM.

Mr. NETHERCUTT. Do you expect the comment period to be extended?

Mr. MILLS. I am not expecting it right now, but I wouldn't doubt that there would be a request.

Mr. NETHERCUTT. If that happened, what would the likely financial impact be?

Mr. MILLS. The numbers I have seen are costs of about $250,000 per month, per extension.

Mr. NETHERCUTT. What do you do? Do you send comments out to your scientists and then they respond to the comments? Is that basically what it involves that would involve that $250,000?

Mr. MILLS. It is mostly individuals associated with the environmental impact teams that are collating and synthesizing what the comments are, and the scientists don't get involved in analyzing the comments as they are in predicting the consequences of other alternatives that the environmental impact team might come up with.

Mr. NETHERCUTT. What is the personnel devoted to the study? Do you know that right off, in your records? Can you provide that to us?

Mr. MILLS. I have it right here, if I can find the right page.

Mr. MEALEY. I think we have got the numbers on the paper. It is probably somewhere between 50 and 60 people.

Mr. MILLS. In 1994 it was 65; in 1995 it was 65; and in 1996 it was 43. We have been downsizing during 1996, especially as to the science efforts that have been completed and some of the scientists have been sent on to other assignments, but the permanent full-time staff directly associated with the project has been 65, down to 43.

Mr. NETHERCUTT. Okay. And in fiscal year 1997, what would the personnel number be?

Mr. MILLS. I don't have an estimate here, but it would be less than 43. Using this estimate it might be 30.

Mr. NETHERCUTT. Prorated reduction, maybe?

Mr. MILLS. Yes.

Mr. NETHERCUTT. Roughly.

Mr. THOMAS. For some period in that year.

Mr. NETHERCUTT. I want to talk with you about the resource advisory councils. I understand both your agencies consult with Resource Advisory Council. Will the role of the Resource Advisory Councils involve developing alternatives?

Mr. DOMBECK. The Resource Advisory Councils are part of the Department of the Interior and BLM strategy. In Washington and Oregon, they are involved. In fact, I was at the—in La Grande at the Resource Advisory Council last week, and Elaine can fill us in on the details if we need this. Their number one priority in issues is dealing with the Columbia River Basin.

Is that right, Elaine?

There has been tremendous interest in this, and that will continue to be another venue to get to other local public and broad-based constituencies similar to what we are doing in the councils in this issue. And, of course, those groups are represented by members of the conservation community, members of academia, the public at large, Native American tribes, the commodity groups, outfitters and guides, and the whole spectrum of interests that are out there on the land.

Mr. NETHERCUTT. Do you think they are qualified to look at the scientific information, or are they looked at more as a public input representative?

Ms. ZIELINSKI. They can be both. The Resource Advisory Councils have the authority to ask the agencies to get some experts together to help them review the material. It is my understanding that they have asked us to provide some of our folks to look at this and sort through the technical information, I think they also are looking at possibly getting some other people as they see more material.

The Resource Advisory Councils in Oregon and Washington have seen drafts of the material and have been very involved in the process so far.

Mr. NETHERCUTT. Do you think they have or will have greater weight than the public, or are they considered a substitute for the public, or are they looked at as having a little higher expertise level?

Ms. ZIELINSKI. They are certainly not considered a substitute for the public, but I think they are looked at as having a little more weight. Just the composition of the group their comments, where they have discussed them and done a fairly in-depth review. They have, I think, overall, a good overall knowledge of what is being proposed in this area.

Mr. THOMAS. Let me assure you, the Forest Service doesn't have resource advisory councils. That is part of the Interior grazing strategy. But very obviously this is all part of involving the public. So, the Forest Service will consider what they have to say. This is one overall effort, and of course we would consider that input.

Mr. DOMBECK. The way these members are selected, they can be nominated by groups or by individuals. The process is very open, and the whole idea is that Washington not control how they work. There is an appointment by the Secretary, but they are nominated jointly by the BLM State director and the governor's office. They are representatives of the whole variety of interests, and they are set up in a way to represent ranchers or miners, loggers, outfitters and guides, and Native Americans. The intent of that is, they represent that segment of opinion.

Mr. NETHERCUTT. We have talked about local communities and their involvement and the RAC's involvement as well. My understanding is that 30 isolated timber-dependent communities within the project boundaries have been identified. Is that correct?

Mr. MILLS. The number I have got is 29, but round numbers, that is pretty good.

Mr. NETHERCUTT. Okay. How were those communities identified? What was the process that has gone through for that identification?

Mr. MEALEY. I think it was done through a fairly broad screening process, but it looked at, on a comparative basis with other communities, simple employment opportunities where we looked at the clustering of employment relative to specific needs, and these communities shook out as most dependent.

Mr. NETHERCUTT. I think you have identified some in my district and I am wondering if those communities will receive any kind of special treatment under the management directions? Do you anticipate that?

Mr. MEALEY. There are two things I want to say about that. First of all, chapter one of the EIS drives everything else, and in that chapter we state the purpose and need; and there are two needs that are identified, and they are equally important. One is the restoration and maintenance of long-term ecosystem health and integrity and the second is the support of economic and social needs of people, cultures and communities and a sustainable level of goods and services. So all the alternatives have to respond to those needs.

In the alternatives, we have objectives, of course, that are stated differently because the themes of the alternatives differ; but as we have objectives to restore ecosystems—forest, if you will, for forest health—we also have objectives to make sure that we keep intact the infrastructure of communities. So we have a very specific objective to do that that complements the requirement to restore the ecosystems, and then in—we have a specific standard that sets the limits on which we can have trajectories of variation in annual timber harvests, for example, in a given year.

Now, in these—and these brackets, if you will, vary by alternative, looking at more narrow for some that are more responsive to the needs of local communities and some that are broader. But these are not easy things to do.

What we don't want to do is to significantly affect the infrastructure of the dependent communities moving toward ecological restoration, and we see these—and that is the principal way we have built the alternatives and standards to do that.

Mr. NETHERCUTT. Are you not going to make predictions about the economies of particular areas over long periods of time? Is that part of this exercise that you are going through, that you are involved in?

Mr. MEALEY. There are two questions or two responses, but I want to emphasize this: that we are talking about broad scale——

Mr. NETHERCUTT. Right.

Mr. MEALEY [continuing]. Decisions. So if we could think, for example, about a chunk of country we would refer to as the warm, moist forest which would kind of be like that of north Idaho and western Montana, we would have some objectives for restoration in this large area.

Now, in that area would be communities as diverse as—geographically diverse as Libby, Montana, and also over into the Coeur d'Alene country. So we can't be specific as to what might happen in a particular town, but we can be responsive in general to the conditions that would be affected by these alternatives for management that we are considering. And as we step this down locally and translate these broad objectives into effects on a specific forest and calculate allowable sales quantities that would reflect that, then the local forest could be far more responsive to the needs of the local town; and that is exactly when we look at when we look at Libby or Coeur d'Alene.

Mr. THOMAS. We got deep into this the last time we went through this, and one of the cautions I would put forward, we could put out what we consider to be potential. But we are one drought, one insect outbreak, one election, one budget, one pesticide outbreak, one herbicide outbreak, one species being listed, one court case away from stability all of the time. We can project possibility, but I never again want to sit down and say, I can tell you for darn sure that it is going to be 100, because I can't do that and no human being alive can do that, unless we want to put some pretty dramatic changes in the system.

Mr. DOMBECK. I think another important plan along this line is that what we are providing to these communities is the best information ever to allow them to move forward with long-range planning and the best information possible for assumptions as they deal with thinking what they are going to be like 10, 20 and 30 years down the road.

Mr. NETHERCUTT. You really can't predict beyond about 10 years in any area with any real accuracy. You can get trends and so forth but if you go beyond that, you are pushing it, which also brings me to a comment about recreation.

You know our area has high recreation activity. It is a very important part of the North Country in my district and other States and areas as well.

How do you quantify that? How do you factor in the recreation opportunities that need to be factored in? I think you need to do that. Is that part of your plan?

Mr. MILLS. The question about communities you discussed earlier was dealt with in the science assessment by attempting to look at resilience of communities which mostly is wrapped around how diverse the economy is in a particular community or county. And well over half of the people in the basin are under fairly rapidly growing either recreation counties or metropolitan areas, but unfortunately they only occupy about 15 percent of the land. So half of the counties are in low economic resilience classes using standard procedures to see how resilient an economy is to shocks, one sector of the economy or another.

We looked at the employment base in the basin and attempted to quantify that, using procedures we are using elsewhere and, yes, it turns out that mining and timber harvesting and grazing and recreation are major contributors to the economy of the basin, accounting for roughly 20 percent of the employment. This is direct employment, rather than indirect where you get into a lot of basis about how you—which jobs you count, which jobs you don't count.

But, yes, recreation is a major piece and, in fact, it is quite a bit larger in the current basin-wide economy on an average than even the timber and mining and grazing put together.

We have attempted then to project how the different alternatives would affect recreation use in terms of recreational opportunities and thereby affect our project, at least the direction in which those jobs would go, associated with the timber, mining, grazing and recreation in each of the alternatives.

Mr. NETHERCUTT. What is the other 80 percent?

Mr. MILLS. The other 80 percent is very, very heavily agriculture. There are a lot of service sectors. In fact, I have got it broken down here, real quick. Agriculture, construction is 4 percent; manufacturing, about 12; trade is about 22; service is about 25; government service, 16; State and local is 12 of that 16.

Mr. NETHERCUTT. Is this for me?

Mr. MILLS. Sure, if that is helpful.

Mr. NETHERCUTT. We will make that part of the record. Trade, 22 percent; I wonder what that is. Maybe it says here.

Mr. MILLS. Retail sectors, gas stations, grocery stores, the dime store on the corner.

Mr. THOMAS. One thing I would point out in that great recreation aspect is that we only capture resources three ways that are shared with the counties. That is grazing and timber and mining. We don't capture anything out of recreation that is shared. The Congress has given us an opportunity to deal with 50 test cases this year, but I think you know I did some work some years ago that would indicate that very modest hunting stamp would match timber and grazing receipts and one where they ought to consider, as these things shift around in the economy, some way to capture some of that for support of the work that we do and support of shared revenue with the appropriate counties.

Mr. NETHERCUTT. I want to talk quickly about science and then wrap this up here in a few minutes, if you will indulge me here.

You talked a lot about science and science-based decisions. Is there any science input that has occurred from outside government sources? Are you looking at any private scientific information or taking testimony or getting any assistance from private science resources?

Mr. MILLS. Yes, we are. There are about 170 Federal scientists involved in this project in one way or another, Forest Service, BLM, EPA, National Marine and Fisheries, for example. There are also an additional approximately 100 scientists involved with contract reports, including universities, private firms and other organizations.

So as an alternative to staffing up the government agencies or the Federal Government agencies, we tried to go where the expertise was that we could get the cheapest and the fastest, as well as reviewing the literature that is already available. Some of this was new science that was done with new data that was available, but much of it was simply synthesizing what was already available, and that comes from a broad range of sources.

Mr. NETHERCUTT. What about social science information? Are you looking at the social science parts of this study as well as the hard science, biological science and so forth?

Mr. MILLS. Yes. There's a fair amount of economics work that has been done in terms of, as I talked about earlier, measurements in resilience of economies, contributions to jobs, measures of resource value in different ways to measure that value.

There is also some sociology work that has been done on communities and such concepts as identification that all of us have associations with individual places and trying to figure how that fits in with a sense of community, not only communities in place but communities of ideas, as well as physical communities of houses as you and I might think of.

So, yes, sociologists have been involved in this, attempting to bring the best understanding of what makes a community resilient and whole; and economically, what makes them resilient and vibrant and to measure that resilience across the basin, generally on a county-by-county basis, although as the chief has said, especially when projecting anywhere in the future, that gets pretty fuzzy.

Mr. NETHERCUTT. Yes, it does. I think the concern that the timber worker has is, if you have a status quo determination on logging and timber activity in a particular county or region or forest then, it is nice to talk about retraining that timber worker and he or she may be able to be retrained, but he or she may not be able to stay in that community. In other words, there may be training for a job in Seattle, but that isn't a very good solution for the person who has their family in a particular community and has lived there forever and ever and wants to stay there.

So that is what concerns a lot of people with regard to resource availability, so that industries can continue—for example, the timber industry or the mining industry or whatever it is.

I know Mr. Geisinger testified that with regard to alternative two, status quo numbers for timber harvesting are inflated. There really isn't the kind of timber harvesting that the status quo seems to indicate. So maybe we have an inflated level of harvesting and if that alternative is adopted in a particular area, it will not solve the timber problem.

What is your comment on that?

Mr. MILLS. Well, I will have to defer to Steve in terms of the timber levels of the different alternatives.

Mr. NETHERCUTT. All right.

Mr. MEALEY. I need to say, we didn't use any particular output level as a target with these alternatives. We looked at acres treated for ecological restoration of different forest types and those levels varied by alternative. We had a couple of alternatives that are more aggressive in restoration and some that are less, as we depart from the way we have done things in the past. We made a very early initial effort to translate the acres treated into volumes, and I need to say that that was very, very preliminary and it was used by our science team only to attempt to get some idea of the—of the implications of these alternatives for volumes. And I need to tell you that those have been circulated fairly widely, and despite our efforts to caution people about their value, they haven't been too successful.

I am very uncomfortable with projections of volumes from these alternatives, yet until we have some stability in the acres treated, which we don't yet have, and until we have put under close scrutiny the methodology for translating these acres treated into actual volumes—so I am not comfortable talking about volume implications for these alternatives yet.

Mr. THOMAS. Would it be fair to say that you, before you are really done on any kind of real estimate, you have to drive it through the individual forest plan?

Mr. MEALEY. I think that is very true in terms of accurate projections.

Now, we will use some measures to get some general sense of differences among these alternatives, but there is one thing I want to stress again. These alternatives are not yet stable in terms of the acres that we would have in there for treatment by alternatives—and I understand the concern, because the early projections were that the volumes would be off.

Mr. NETHERCUTT. Right.

Mr. MEALEY. And that is fair, and we are working to get some stability on those acres.

Mr. NETHERCUTT. I want to thank you very much. Does anybody have any more comments for the record?

Mr. THOMAS. I would like to make one more as to cost.

Ordinary plans across the entire United States cost $2 to $3 million apiece. Some of them, as described in previous testimony, cost considerably more than that. If you took the planning units within the basin, multiply them by 2.5 or 3, given inflation since we did it the last time, you will end up with a number much, much greater than 30 million, and you will end up with a time frame considerably longer. So given the circumstances that we face, I think that that cost is not extravagant.

We rarely finished a forest plan in 3 years. To do something like this within this time frame is pretty fast. People say that it takes on a life of its own, but you have got a choice. We drove hard in the Northwest, and if we had gone more slowly and more methodically, we might have done a better job. I don't think it would have changed too many things, but in that case we were criticized for going too fast and for not looking at private land. Oh, my God, you would have gotten a different answer.

Now we are looking at private land. We have got everybody worried about that, and we took 3 years instead of 90 days and now people say it has taken on a life of its own. You can't have it both ways. But in my opinion, 3 years is pretty fast, given the circumstances. Wait until you see the science documents that come out of this stuff. I think it is a good investment. I don't think it has taken too long. In fact, I think it is effective and efficient and really remarkable under the circumstances.

Mr. NETHERCUTT. Well, I remember I told you at a hearing before on your budget request that I had had some contact with some of your people out in the field. I know they are working hard and they are dedicated and they are working very hard trying to meet the time lines.

Our concern has been that Federal land managers not be forced into accepting generalized, inflexible plans that affect their particular forest. We want to preserve that flexibility. When Senator Hatfield and Mr. Foley initiated the money for this study, I think that they intended that there be scientific information presented so that the land managers could do what they do best and that is manage forests. I just hope that is still our intention.

It has been helpful to me and us on the committee to have your input today and hear your explanations and answer some questions that we all have had.

Do you have a comment? Both of you do?

Mr. MEALEY. I wanted to make one other point and that is, this one-size-fits-all issue—and we didn't say enough about that in terms of all the work we spent on it—but people persist in that we somehow haven't made the refinements necessary to overcome the one size fits all; and I want to say that the work that the Forest Service and BLM have done with Fish and Wildlife Service and National Marine Fisheries Service, especially on the aquatic conservation strategies using the science that has come on line since we began the project, to use information to allow us to be more accurate when we talk about what we call riparian management objectives, the amount of wood in streams and the number of pools per mile, we have built flexibility into that reflecting the new information we have.

The widths of streams, for example, we have changed the way we look at that based now on new information, and the areas that we talk about, where these areas apply, are not locked out. They are not places where you don't do things; they are places where you do things necessary to enhance the fisheries and conditions and the streams, which in some cases can mean management. So we made some real conscious efforts to make these standards more accurate.

Mr. NETHERCUTT. Thank you.

Mr. MILLS. Could I comment on just one thing. I appreciate the opportunity to toss a point in here real quickly.

Occasionally I am concerned that I hear this term "scientific-based decisions" being interpreted as if somehow scientists are making decisions, and I want to assure you that the scientists are working very, very hard not to make decisions. Their job is to get the best information on the table that they can get on the table, and they very carefully avoid any misimpression that they are making decisions.

In fact, one of the ways we have worked hard to take even additional steps is, at this point in time, they don't even make recommendations for fear of taking a particular position. They are all hard-working, dedicated people that clearly have personal views, but they are doing their best to keep their personal views separate from what their professional responsibilities are; and the only thing that they are strongly dedicated to is that information on the table for informed decision is far better than a decision without that information. And occasionally the notion that somehow we would be better off if we didn't know these things—I think if we look back at previous resource decisions, we can find that they usually cost us and cost us dearly when we either ignore what we had or didn't reach out just one more step to get what we easily could get.

But any image that somehow scientists are making decisions is an incorrect image, in fact as well as in spirit.

Mr. NETHERCUTT. I appreciate your comments. No disrespect is meant by any of this, but there is science and there is science, and I think our task, our goal, is to make sure that we and you have good science, not just science. Because perceptions of what is the right science and wrong science, you can find different scientific opinions on management decisions right down the line. So our goal is to make sure that the science is good science, it is universally accepted and is the best possible by the people with all of the expertise. Then we can make sound judgments.

Mr. THOMAS. Without leading into a great discourse about science, but scientists never agree with each other about anything. That is the nature of the scientific process. You hypothesize the task, throw it out, criticize, peer review, try again.

There is a confusion about science-based and science. Science, in my mind, is the testing of hypotheses and so on. Using scientists to synthesize information into usable form and bringing it forward is a different kind of a chore. In fact, I think it is a new—a new thing that is evolving, now evolving, is a legitimate attribute of scientific endeavor.

Ten years ago we were talking about, well, I wouldn't do anything like that. That would be beneath my dignity. But now as we try to bring science to bear in decision-making not only in natural resources but across the entire Nation, we need to clearly determine between what science is in terms of hypothesis testing and what is the application of scientists that are highly skilled that are synthesizing information and evaluating information for use. It is a different—it is a whole different game.

Mr. NETHERCUTT. I understand. It is like your statement that I wrote down. You want to assure that lands are ecologically sound. That is what you said in your testimony. And I guess perceptions can differ about what is or is not ecologically sound.

Mr. THOMAS. I think all scientists would agree that ecological soundness, in the end, is the ability of that land to produce, for time to absorb shock. It doesn't mean that wheat fields aren't part of it, that intensive forestry is not part of it, but that the system is able to absorb shock and to maintain itself over time. Sometimes it takes artificial inputs, et cetera, but it has that capability.

If we are running that land downhill and it is not supportable over time, with population going up, that is something that none of us would want to see happen.

Mr. NETHERCUTT. I understand.

Thank you very much, I appreciate your testimony.

The hearing is adjourned.

[Questions and answers for the record follow:]

Organized 1870 to Promote the Conservation, Development and Wise Utilization of the Fisheries

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PAUL J. WINGATE
President 1995-1996

PAUL BROUHA
Executive Director

May 21, 1996

Honorable Sidney R. Yates
Appropriations Subcommittee on
 Interior and Related Agencies
B-308 Rayburn House Office Building
Washington, DC 20515

Dear Representative Yates:

Thank you for your follow-up questions concerning my testimony at the Oversight hearing for the Interior Columbia Basin Ecosystem Management Project May 7, 1996. I will address your questions in the order presented:

1) What will happen to these at-risk fish populations if you don't implement an ecosystem-wide management plan in the Columbia Basin and instead continue with current practices?

At-risk populations currently exist as isolated remnants in headwater tributaries. Without ecosystem-wide management the potential to reconnect these populations and thus ensure genetic exchange and viability across the landscape will not be realized. They will remain vulnerable to relatively minor catastrophic events (drought, fire, flood) and will likely continue to "blink out" of existence one-by-one.

2) In your professional, scientific opinion, do you believe the Forest Service and the Bureau of Land Management are using scientifically sound methods in conducting the Columbia Basin assessment?

Yes, I do. Much of the work being done integrates traditional disciplines of fisheries and wildlife biology, forestry, and hydrology. It is an unprecedented advancement of the applications of scientifically sound methods.

3) It is my understanding that the Forest Service and the Bureau of Land Management are not planning to issue any regulations affecting private lands based upon the Columbia Basin project. Are they wrong for only focusing on federal lands?

From an academic and strictly scientific perspective one could argue for a more comprehensive planning approach that would encompass private lands. Realistically, however without "selling" their approach first to state, Tribal, and private landholders, they stand no chance of achieving landscape-level management. It is far better to demonstrate, by example, the validity of their approach and to ultimately succeed by going slowly, a watershed at a time, with willing cooperators .

Thank you for the opportunity to address your questions.

Sincerely,

Paul Brouha

Paul Brouha
Executive Director

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encl. Testimony, copy of Rep. Yates questions

[exec/paper/yates-tesques]

USDA, Forest Service

Interior Columbia Basin Ecosystem Management Project

FOLLOW-UP QUESTIONS
from
May 7, 1996
Interior and Related Agencies Subcommittee on Appropriations
Oversight Hearing for Fiscal Year 1997 Appropriations

1. Please give a brief run-down on the forest health problems in the Interior Columbia basin.

In general, forest structure, stand densities, and composition within the Interior Columbia Basin has changed dramatically in the last 50-80 years. This has left many of the forests more susceptible to larger and more intense insect and disease outbreaks and wildfires. This has generally had a negative affect on fish and wildlife habitat, water and air quality, and a predictable and sustainable flow of goods and service for natural resource dependent communities. The primary causes of the forest health problems are historical timber harvest practices, suppression of wildfires, and drought conditions.

There are some positive trends in management. The use of best management practices for the last 10-20 years have improved road construction and maintenance. These practices are more sensitive to soil productivity protection and water quality protection concerns. Prescribed fire techniques have improved and are being used to help remedy some forest health problems. Forest management approaches have changed in both harvest techniques and silvicultural treatments so that more "light on the land" treatments are available to managers.

2. What new discoveries or insight regarding forest health have come from your scientific assessment, and how will your plans attempt to turn this situation around? Please give a brief summary answer.

The Scientific Assessment shows how forests have changed on a landscape level. Old forests and the number of large trees have declined from historic (1800s) levels. Forest species composition has generally shifted from fire-tolerant species (ponderosa pine and western larch) to fire-intolerant species (firs). Middle-aged, overstocked stands and insect, disease, and fire susceptibility has increased. These changes have implications for aquatic and terrestrial resources.

The Draft Environmental Impact Statements will display an array of management techniques to address the current situation. Thinning, prescribed burning, and prescribed natural fire are methods being considered to ameliorate the problems.

3. Isn't it very important to utilize timber harvest and salvage as key tools to reduce the fire danger and to generate jobs and receipts?

Salvage and timber harvest can be key tools to help in the restoration process while providing jobs and revenues to states and counties. Commercial timber harvest can be one silvicultural technique to reduce fire danger. The type of silvicultural prescription (e.g. thinning, selective tree harvest) and species of tree harvested must be designed to meet current forest health problems. However, there are other important ways to reduce fire danger that in some instances are ecologically preferable such as prescribed fire and precommercial thinning that improve forest health. These other tools should not be overlooked by Congress.

4. How many timber dependent communities are there in the study area? How are you including concerns for these communities in your planning effort?

The assessment does identify communities that are timber dependent. There are 29 communities out of the over 400 communities in the study area that have been identified as being timber dependent. These communities tend to be more isolated and away from populated areas with more diverse economies. Communities defined as timber dependent were at least 50 miles from any community with a population of 10,000 or more. This definition was used to focus on the most isolated timber dependent communities rather than a general list of any community with milling or logging employment.

The EIS teams are using this information in developing the DEISs. The effects on these communities will be displayed in the "Environmental Consequences" section of the DEISs.

5. Since we have a long term need to utilize timber harvest as a forest management tool, how can you assure that mills will have sufficient timber supplies to stay in business so they can provide jobs for their communities and be able to thin and salvage the woods as may be needed in the future?

The Forest Service and BLM can only provide a supply of timber that is sustainable to our natural resource base. In some cases, this may mean a National Forest may not be able to supply present demand or historical levels of timber volume if doing so will damage resources and violate laws. Though our goal is to provide a predictable level of timber meeting the needs of the communities, many factors which affect the flow, marketability and supply of timber are outside the agencies' control such as economic factors or natural events.

6. Can you give some examples of negative or positive impacts of wildfires on the fish and wildlife populations in the Interior Columbia Basin?

Wildfire may create a mixture of tree age classes and structures, depending on the intensity of the fire. These more complex landscapes can provide a mixture of habitats for fish and wildlife that are less susceptible to future wildfires. Fires can aid long-term stream habitat processes by providing wood into streams.

Uncontrolled wildfires burn trees that provide nesting cavities for wildlife. Wildfires may burn riparian or streamside vegetation that helps shade streams and provide stream bank stability. Uncharacteristic wildfires can have negative impacts on soils and can cause accelerated erosion. Fish and wildlife habitat can become isolated and fragmented.

7. How extensive is the prescribed burning and fuels loading program for the national forests and grasslands and BLM lands in the study area?

All National Forests and BLM Districts within this area have strategies and prescriptions for managing fuel loads and conducting prescribed burns. The current fuels treatment program within the area ranges from 100-200,000 acres per year depending on funding and weather conditions.

What percentage of the fuels management program as described in the forest and district plans are actually implemented?

What funding would be needed to fully fund the prescribed burn and fuels management programs in the current forest and district plans?

The exact percentage of the fuel program being implemented as identified in individual land mangagement plans is not readily available. However, it is generally believed that the amount of prescribed fire and fuels management activities is less than what is projected in these plans.

The needs for future management for fuels is being reassessed in the ICBEMP EIS's to address the broad issue of forest health. At that time a more current estimate of future needs will be identified.

8. There is also a lot of concern for rangeland health. What is the condition of the rangeland in the study area?

Much of the rangeland riparian or streamside areas have been stablized. Still, much of the streamside areas lack desired density and composition of vegetation, and the noxious weed problem is expanding rapidly.

How will your plan affect grazing and livestock-dependent communities?

The effects of the seven DEIS alternatives on grazing and livestock-dependent communities will be displayed in the "Environmental Consequences" chapter. That analysis is not yet complete.

What criteria do you use to determine range conditions and trends?

The following are some of the factors used in determining rangeland conditions and trends:

- change from native vegetation to exotic plant species;
- rapid spread and increased density of woody vegetation (e.g. western juniper);
- grazing practices;

- prescribed burning;
- wildfire; and
- climatic conditions (especially drought).

How has rangeland condition been affected by invasive and noxious weeds and how has rangeland condition been affected by wildfire?

Invasive and noxious weeds have replaced native plants simplifying the rangeland ecosystem. This invasion is causing rangelands to be less productive from a vegetation, livestock and wildlife perspective. Invasive and noxious weeds can also cause changes in the hydrologic cycle.

Wildfires can be a factor that negatively impacts rangeland condition. Exotic grasses like cheatgrass and medusahead are extremely flammable and increase the frequency of wildfires. The more frequent the fires, the less likely native species will be able to persist. Also, there is a higher risk of erosion because of having bare soil more often.

9. Is there a special role for the federal lands, as opposed to the state and private lands, in providing fish and wildlife habitat conditions that are relatively uncommon, rare, or have special characteristics such as old-growth?

Federal lands do play a special role in providing habitat for uncommon or rare fish and wildlife. For instance, old growth forests are found almost entirely on lands managed by the Federal government, where once they were found in abundance on private land as well. If such forest and rare species are to persist, then special care is needed in managing these habitats.

Federal laws like the National Forest Management Act, the Federal Land Policy and Management Act, and the Endangered Species Act require the protection of wildlife and fish species, and their habitats. Federal actions are to be carried out in a manner that will not contribute to extinction of species.

10. What kinds of partnerships have evolved to aid your federal management in the study area?

The project has developed partnerships with state, local, and tribal governments over the past two years. The Project signed a Memorandum of Understanding with the Eastside Ecosystem Coalition of Counties, on behalf of the count government associations from the states of Washington, Oregon, Idaho, and Montana. These partnerships have fostered an open dialogue and a sense of cooperation during the preparation of the scientific assessment and development of the Draft EISs. The Executive Steering Committee for the project will be soliciting input on a preferred alternative from the States, tribal governments, the Eastside Ecosystem Coalition of Counties, and the Resource Advisory Councils as part of that partnership.

To what degree do the states, counties, industries, interest groups and citizens provide funds and expertise to aid timber, recreation, fire, and fish and wildlife management and projects? Please provide a brief answer summarizing in each of these program areas.

Most of the support the BLM and Forest Service receives from states, counties, industries, interest groups and citizens is in the area of expertise or volunteer work. Below are just a few examples of some of the expertise and volunteer work being done:

Timber:	Technical information on harvest methods harvest methods like helicopter logging.
Recreation:	Share costs for water treatment facility that supports both private and federal recreation facilities; space provided by private business for BLM/Forest Service interpretive displays and programs. Individuals and organizations across the nation volunteer to build and maintain trails on federal lands.
Fire:	The National Interagency Fire Center in Boise, ID is the national clearing house for fighting wildland fires on federal, state and private lands through the incident command system. Wildland fire fighting is a prime example of interagency and cross-jurisdictional cooperation on the ground. Cooperative agreements for fire suppression activities exist nation-wide between federal, state, local, county fire fighting organizations.
Fish and Wildlife	Developing wildlife conservation strategies for rare species by state and federal biologists; improvement of wildlife habitat by conservation groups like Trout Unlimited, Rocky Mountain Elk Foundation, or Association of Northwest Steelheaders; construction, placement and maintenance of blue bird houses by Boy Scout troops.

11. To what extent will the science and management information accumulated by your project regarding environmental, fish, wildlife, or endangered species result in greater controls and reduced management flexibility on state and private lands?

No decisions are made in the scientific assessment. Management decisions documented in the Record of Decision for the EIS's will only apply to BLM and Forest Service lands.

Has your economic analysis indicated any decrease in property values or present net value of resource utilization activities on state and private lands due to such potential constrictions?

We did not study property values or present net value of resource utilization activities associated directly with private land.

12. To what extent will the planning and protection your project will provide for federal lands help take environmental, fish, wildlife, or endangered species protection obligations off of state and private lands?

For many species, protection of federal lands will be sufficient to assure their long-term viability. For other species, like the salmon, protection of federal lands can not alone assure viability. It will take a cooperative effort between many federal, state, tribal governments, and private entities to protect and restore these species. One example of a cooperative effort is the Idaho Governor's Bull Trout Conservation Plan, which involves state and private land managers. Federal land management agencies are prepresented on the Governor's steering committee through this project.

Does this increased federal role in environmental protection result in greater flexibility for state and private land management?

Greater protection on federal lands can lead to more flexibility for state and private land management in many instances.

Has your economic analysis indicated any increase in property values or present next value of resource utilization activities on state and private lands?

We did not study property values or present net value of resource utilization activities directly associated with private land.

13. As timbering moves into more environmentally sensitive areas, the volume of timber that can be removed while causing minimal environmental damage will decrease despite more sophisticated harvesting plans. Are you looking at the European (German) model of forest management, where stands are being harvested for primary, secondary and even tertiary products for the fifth and sixth time?

We are always looking at ways to increase utilization of wood fiber in the areas we harvest. However, instead of emphasizing "cropland" strategies like those in Europe, we are emphasizing restoring or maintaining ecological functions and processes while providing for multiple use management.

14. The implication of these European models is one that relies on intensive management and where the urban/forest interface is completely interwoven, and forest fire is not catastrophic in nature. Can any of that knowledge be applied to the Interior Columbia Basin?

Yes, there may be things to learn from the European models. However, there are significant ecological and social differences between Europe and the Interior Columbia Basin.

15. To implement a policy that will significantly reduce forest floor fuel loading, the primary cause of large scale uncontrolled wildfire, will new utilization standards, or will new products have to be developed that can economically utilize that type of forest product?

Significant fuel loading is only one factor that contributes to large scale, uncontrolled wildfires. Other factors include climate (drought conditions), weather patterns (lightening storms), tree stand density, and accessibility.

To reduce tree stand density, which means removing the smaller diameter trees, new utilization standards and new markets for this material will need to be developed. Availability of smaller diameter material may also lead to investments in the private sector to utilize this material. There is ample evidence in the region of some forest industry entrepreneurs who are moving this direction as part of an overall business strategy.

16. There has been tremendous pressure recently to assure that forest sales are net revenue producers. The positive revenue stream can be reversed when the cost of fire suppression activities are included in the analysis. To moderate wildland fire, thus reducing the astronomical costs of fire suppression, are there activities that can be incorporated in timber sales to dramatically reduce the possibilities or scope of these types of fires?

Forest management practices will emphasize developing forests that have a tree composition and structure that will help keep wildland fire as a moderate force. To reach an acceptable range of tree composition and structure will take many years.

Current timber management practices require the removal (utilization) or disposal (burning or chipping) of logging debris. These practices will continue with an eye towards better utilization. The project has developed cost estimates for each alternative, including forest management activities which may reduce fuel loadings. In addition, cost estimates for fire suppression for each alternative were developed based on the expected forest management activities. While the cost estimates are not precise, the information allows for a comparison of alternatives where fire suppression costs may be avoided by fuels management activities.

17. Since the Interior Columbia River Basin has become mottled with urban/forest interfaces, what role do private insurance carriers have in defraying costs associated with fire suppression activities concentrated on protecting structures, and should these not be recovered by the federal government?

It is not the role of the federal land management agencies to determine the role of private insurance carriers in defraying the costs of fire suppression. The only time land management agencies deal with this issue is when an individual or organization is found negligent in causing a wildland fire. The government then tries to recover the fire suppression costs it incurred.

18. Please provide a table which shows the expenditures for the project from the BLM and the FS. Include entries that show funding subactivity (EBLI) contributions by regions or states, by year. Please also provide estimates of contributed value where staff time was supported by home units.

Table 3 provides the requested information. No attempt was made to capture contributed costs. Past experience has shown that a project confined to a single administrative unit, contributed costs range from 1-5% of the total project cost. In the case of the Interior Columbia Basin Ecosystem Managemnet Project, multiple governmental agencies, at multiple levels of their organizations (national, regional and local) were involved in close coordination and consultation. Therefore due to this project's complexities the contributed value would be expected to be somewhat higher than the 1-5%.

19. Please provide a table which shows the number of federal personnel working full time on the project, the number of detailers, and the number of contractors. Provide entries per year and agency, and show which major aspect of the project the work is related to. Please make this table consistent with, or part of, the table requested in 18 above.

This information is found in Table 4.

20. Please provide a table which lists the national forest and grassland plans, as well as district plans that currently are in force in the study area. Please list the date the plan was completed, when it was started, and a rough estimate of the cost that went into its completion. Please also list the date of the most recent monitoring report for the plan.

This information is found in Table 5.

Information on the cost to complete individual plans is highly variable. Costs vary depending on the plan's vintage, the issues requiring attention, the complexity and variety of the natural resources covered by the plan, and on the level of public interest. A rough estimate of costs to complete BLM and Forest Service plans in the attached table follows:

Bureau of Land Management:	**Forest Service:**
Oregon/Washington, Idaho and Montana	Regions 1 and 4
$2.0 million/ plan	$2-3 million/plan
	Region 6
	$5-6 million/plan

The Forest Service require periodic monitoring reports for plans. The dates the last monitoring reports were made available to the public are listed in the table. The BLM does not have a requirement to do such reporting. However, many BLM Districts are sending out periodic planning update reports.

21. Please provide a table which indicates, in an approximate way, the length of time it will take to update forest or district plans once the project's final EIS and ROD are completed, if it goes according to the current plan. If you like, you may incorporate this information in the table requested in number 20 above.

The intent at this time is to amend all plans within the project area on certain issues at the time of the Records of Decision (RODs). We are considering a practicable transition process to bring current plans and projects into compliance with new direction that results from the RODs. This transition process (known as "reconciliation" in the Northwest Forest Plan) could take up to one year.

22. For informational purposes, please provide a table which suggests the types of policies and management activities that are more likely to be covered by the broadscale plan, and those that are more likely to be covered by forest or district specific plans. This should not be a comprehensive listing, but a summary for discussion purposes.

Broadscale:

Habitat management for wide-ranging species
Aquatic and riparian management strategies
Setting priorities for management and resource allocation within the Columbia River Basin
Meeting Clean Water Act and Clean Air Act
Responding to insect and disease outbreaks or their potential
Forest/rangeland health
Strategies for reducing exotic weeds
Urban/wildland wildfire strategies and priorities

Local Forest/District:

Design of timber sales
Recreation projects
Allotment management plans
Fish habitat improvement
Restoration projects
Prescribed fire plans
Access and Travel management plans
Firewood policies

23. What ever happened to the Western Forest Health Initiative? Is this still going on? Has it been incorporated in any way into the ICBEMP?

The Western Forest Health Initiative (WFHI) is ongoing. This is a policy level initiative that also created a concrete list of projects that begin to address forest health concerns. The project has incorporated the policy issues into the planning process.

WFHI provides a better understanding of the contributing factors of declining forest health in the west. The project used this understanding and other scientific information in identifying the areas with the most serious problems. The DEISs are proposing alternative management strategies for dealing with these problems within the interior Columbia River Basin.

Table 3

INTERIOR COLUMBIA BASIN ECOSYSTEM MANAGEMENT PROJECT
USDA - FOREST SERVICE:

FY 1994 EXPENDITURES

EBLI	PNW	INT	WO	R1	R4	R6	FY 1994 TOTAL
CNGP				$2			$2
CNRN				$3			$3
CNTM				$11			$11
FFFP				$3	$57		$60
FREM	$1,340						$1,340
FRFE	$878						$878
FRFM	$277						$277
FRRA	$231						$231
FRFN			$1,153				$1,153
FRNP			$107				$107
FRRE							$0
NFAF			$61	$13	$110	$211	$395
NFCR			$29	$4	$4	$99	$136
NFEM				$516	$224	$369	$1,109
NFGT			$20			$70	$90
NFHA				$1		$70	$71
NFIF			$7	$6	$89	$127	$229
NFLA						$70	$70
NFMG			$32	$2		$112	$146
NFRD			$82			$282	$364
NFRM			$72	$11		$162	$245
NFSE			$37	$3		$127	$167
NFSO				$16	$69	$240	$325
NFSP				$5		$70	$75
NFSV				$3			$3
NFTE				$11		$240	$251
NFTI						$110	$110
NFTP				$3	$12	$338 $353	
NFVM				$3		$240	$243
NFWL				$7	$13	$240	$260
TOTAL	$2,726	$0	$1,600	$623	$578	$3,177	$8,704

Dollars are shown in thousands.

Table 3

FY 1995 EXPENDITURES

EBLI	PNW	INT	WO	R1	R4	R6	FY 1995 TOTAL
CNGP					$24		$24
CNRN							$0
CNTM							$0
FFFP					$790		$790
FREM							$0
FRFE							$0
FRFM							$0
FRRA							$0
FRFN	$100	$200	$925				$1,225
FRNP							$0
FRRE							$0
NFAF							$0
NFCR							$0
NFEM			$500	$4,463	$3,068	$1,742	$9,773
NFGT							$0
NFHA							$0
NFIF							$0
NFLA							$0
NFMG							$0
NFRD							$0
NFRM							$0
NFSE							$0
NFSO							$0
NFSP							$0
NFSV							$0
NFTE							$0
NFTI							$0
NFTP							$0
NFVM							$0
NFWL							$0
TOTAL	$100	$200	$1,425	$4,463	$3,882	$1,742	$11,812

Table 3

FY 1996 EXPENDITURES*

EBLI	PNW	INT	WO	R1	R4	R6	FY 1996 TOTAL
CNGP							$0
CNRN							$0
CNTM							$0
FFFP							$0
FREM							$0
FRFE							$0
FRFM							$0
FRRA							$0
FRFN							$0
FRNP							$0
FRRE	$300						$300
NFAF							$0
NFCR							$0
NFEM			$1,000	$713	$713	$1,508	$3,934
NFGT							$0
NFHA							$0
NFIF							$0
NFLA							$0
NFMG							$0
NFRD							$0
NFRM							$0
NFSE							$0
NFSO							$0
NFSP							$0
NFSV							$0
NFTE							$0
NFTI							$0
NFTP							$0
NFVM							$0
NFWL							$0
TOTAL	$300	$0	$1,000	$713	$713	$1,508	$4,234

*Projected expenditures for FY 1996

INTERIOR COLUMBIA BASIN ECOSYSTEM MANAGEMENT PROJECT

USDI - BUREAU OF LAND MANAGEMENT

EBLI	FY 1994 EXPENDITURES ID/MT	FY 1994 EXPENDITURES OR/WA	FY 1994 EXPENDITURES TOTAL	FY 1995 EXPENDITURES ID/MT	FY 1995 EXPENDITURES OR/WA	FY 1995 EXPENDITURES TOTAL	FY 1996 EXPENDITURES* ID/MT	FY 1996 EXPENDITURES* OR/WA	FY 1996 EXPENDITURES* TOTAL
1000			$0	$470	$679	$1,149		$361	$361
1100			$0	$307	$270	$577	$225	$206	$431
1150			$0	$862	$261	$1,123	$300	$206	$506
1300			$0	$37	$17	$54		$11	$11
1400			$0	$200		$200			$0
1510			$0	$100		$100			$0
1600			$0	$474	$15	$489	$135	$11	$146
1990			$0	$100	$14	$114		$11	$11
4310		$29	$29			$0			$0
4320		$143	$143			$0			$0
4340	$57	$42	$99			$0			$0
4350	$100	$236	$336			$0			$0
4410	$50		$50			$0			$0
TOTAL	$207	$450	$657	$2,550	$1,256	$3,806	$660	$806	$1,466

Dollars are shown in thousands

*Projected expenditures for FY 1996

Table 3

EXPANDED BUDGET LINE ITEM (EBLI) CROSSWALK

USDA - FOREST SERVICE:

CNGP	Construction - General Purpose
CNRN	Construction - Recreation
CNTM	Construction - Timber
FFFP	Fire Protection
FREM	Ecosystem Research
FRFE	Forest Environment Research
FRFM	Forest Management Research
FRRA	Forest Resource and Research
FRFN	Research Foundation Programs
FRNP	Forest Resources and Management Research
FRRE	Forest Environment Research
NFAF	National Forest Anadromous
NFCR	National Forest Cultural Resources
NFEM	National Forest Ecosystem Management
NFGT	National Forest Nurseries
NFHA	National Forest Havest Administration
NFIF	National Forest Inland Fish
NFLA	National Forest Real Estate Management
NFMG	National Forest Minerals and Geology Management
NFRD	National Forest Road Maintenance
NFRM	National Forest Recreation Management
NFSE	National Forest Silvicultural Examination
NFSO	National Forest Soil, Water, and Air Operations
NFSP	National Forest Sales Preparation
NFSV	National Forest Soil & Water Resource Inventory
NFTE	National Forest Endangered and Threatened Species Management
NFTI	National Forest Timber Stand Improvement
NFTP	National Forest Timber Resource Inventory
NFVM	National Forest Range Vegetation Management
NFWL	National Forest Wildlife Habitat Management

USDI - BUREAU OF LAND MANAGEMENT

1000	Land Resources
1100	Wildlife & Fisheries
1150	Threatened & Endangered Species
1300	Energy & Minerals
1400	Realty & Ownership Management
1510	Fire - Program Management
1600	Resource Protection & Maintenance
1990	Mining Law Administration
4310	Forest Managementr
4320	Grazing Management
4340	Soil/Water/Air
4350	Wildlife Habitat
4410	Resource Management Planning

Table 4

INTERIOR COLUMBIA BASIN ECOSYSTEM MANAGEMENT PROJECT CONTRACTS AWARDED

ADMINISTRATIVE UNIT	FY 1994		FY 1995		FY 1996	
	USFS	BLM	USFS	BLM	USFS	BLM
Administration			3			
Aquatics Team	3		6		1	
Economics Team	6		3			
Environmental Impact Statement Teams			8		1	
Geograpical Information Systems Team	2	1	2	2	1	1
Landscape Ecology Team	21		27		4	
Science Leadership			1			
Social Science Team	16		5		1	
Terrestrial Science Team	37		13		1	
TOTALS	85	1	68	2	9	1

Table 4

FEDERAL EMPLOYMENT- FY 1994

ADMINISTRATIVE UNIT	USFS		BLM	EPA	NMFS	FWS	USGS	NBS
	PFT	Detail	Detail	Detail	Detail	Detail	Detail	Detail
Project Leadership		1.2	0.6					
Administrative Support Team	4.4	4.5						
Environmental Impact Statement Teams		5.3	1.2	0.2		0.4	0.1	
Communications Team	0.3	4.3	0.3					
Tribal Laison/Intergovernmental Team	1.0	0.1	0.2					
Geograpical Information Systems Team	0.2	1.4	0.6					
Science Integration Team Leadership	1.0	0.6						
Aquatics Team		2.8	0.3					
Economics Team		0.3	0.9	0.2				
Landscape Ecology Team		5.9		0.2			0.7	
Social Science Team	1.3	1.6						
Terrestrial Science Team	0.2	1.9	0.1					
TOTALS	8.4	29.9	4.2	0.6	??	0.4	0.8	??

FY 1994 TOTAL=44.3

Note: Numbers of work year equivalents have been calculated in a short time frame from available information. Other employees not counted above have contributed time under the direction of a "task leader." Inclusion of their efforts would add approximately 25% to the depicted work year total.

Numbers represent Work Year Equivalents: # of days worked/280 work days per year.

Table 4

FEDERAL EMPLOYMENT- FY 1995

ADMINISTRATIVE UNIT	USFS		BLM	EPA	NMFS	FWS	USGS	NBS
	PFT	De-tail	De-tail	De-tail	De-tail	De-tail	De-tail	De-tail
Project Leadership	1.0	1.44	1.0					
Administrative Support Team	6.6	9.3						
Environmental Impact Statement Teams	4.9	9.5	7.8	1.0		1.0	0.2	
Communications Team	0.9	7.7	0.1					
Tribal Laison/Intergovernmental Team	2.7	1.0	0.2					
Geograpical Information Systems Team	1.7	[illegible]4	1.7					
Science Integration Team Leadership	1.0	3.2						
Aquatics Team	??	5.7	0.7	0.4		0.7		
Economics Team	0.9	2.4						
Landscape Ecology Team		30.5		0.2			0.8	
Social Science Team	2.6	1.0						
Terrestrial Science Team	1.0	7.5	0.9					0.7
TOTALS	23.3	81.2	12.4	1.6	??	1.7	1	0.7

FY 1995 TOTAL=123.34

Note: Numbers of work year equivalents have been calculated in a short time frame from available information. Other employees not counted above have contributed time under the direction of a "task leader." Inclusion of their efforts would add approximately 25% to the depicted work year total.

Numbers represent Work Year Equivalents: # of days worked/280 work days per year.

Table 4

FEDERAL EMPLOYMENT- FY 1996

ADMINISTRATIVE UNIT	USFS		BLM	EPA	NMFS	FWS	USGS	NBS
	PFT	Detail	Detail	Detail	Detail	Detail	Detail	Detail
Project Leadership	0.5	1.0	0.5					
Administrative Support Team	2.5	2.9						
Environmental Impact Statement Teams	1.0	8.1	1.6			0.5		
Communications Team	0.5	3.0						
Tribal Laison/Intergovernmental Team	1.0	1.1	0.1					
Geograpical Information Systems Team	0.8	1.0	1.0					
Science Integration Team Leadership	0.5	1.0						
Aquatics Team		1.9	0.5			0.4		
Economics Team		0.7						
Landscape Ecology Team		3.2						
Social Science Team		0.7						
Terrestrial Science Team	0.5	2.54	0.2					
TOTALS	7.3	27.14	3.9	??	??	0.9	??	??

FY 1996 TOTAL=39.24

GRAND TOTAL=206.88

Note: Numbers of work year equivalents have been calculated in a short time frame from available information. Other employees not counted above have contributed time under the direction of a "task leader." Inclusion of their efforts would add approximately 25% to the depicted work year total.

Numbers represent Work Year Equivalents: # of days worked/280 work days per year.

Table showing BLM and Forest Service Land Use Plans within the Project area

BLM / FS	State(s)	District or Forest	Plan name	Date started	Date completed	Date of last monitoring report
BLM						
	Idaho	Boise District	Cascade RMP	1983	July 1988	
		Couer d'Alene District	Emerald Empire MFP	1978	November 1981	
		Couer d'Alene District	Chief Joseph MFP	1978	November 1981	
		Idaho Falls District	Big Lost MFP	1980	December 1983	
		Idaho Falls District	Little Lost-Birch Creek MFP	1978	June 1981	
		Idaho Falls District	Big Desert MFP	1978	October 1981	
		Idaho Falls District	Medicine Lodge RMP	1981	November 1985	
		Idaho Falls District	Pocatello RMP	1985	January 1988	
		Salmon District	Ellis-Pahsimeroi MFP	1979	September 1982	
		Salmon District	Challis MFP	1973	July 1979	
		Salmon District	Mackay MFP	1982	January 1984	
		Boise District	Jarbridge RMP	1981	March 1987	
		Burley District	Twin Falls MFP	1979	September 1982	
		Salmon District	Lemhi RMP	1983	April 1987	
		Boise District	Owyhee MFP	1978	May 1981	
		Shoshone/Burley Districts	Monument RMP	1981	April 1985	

*Most forest plans were started between 1979 and 1981

RMP = Resource Management Plan
MFP = Management Framework Plan

BLM /FS	State(s)	District or Forest	Plan name	Date started	Date completed	Date of last monitoring report
BLM						
	Idaho	Shoshone District	Magic MFP	1975	June 1975	
		Burley District	Cassia RMP	1981	January 1985	
		Burley District	Malad MFP	1975	February 1981	
		Shoshone District	Timmerman MFP	1975	July 1976	
		Shoshone District	Bennett Hills MFP	1975	July 1976	
		Boise District	Bruneau MFP	1980	June 1983	
		Boise District	Kuna MFP	1980	June 1983	
		Shoshone District	Sun Valley MFP	1978	December 1981	
	Montana	Butte District	Garnet RMP	1983	April 1986	
	Nevada	Elko District	Elko RMP	1984	March 1987	
		Elko District	Wells RMP	1982	July 1985	
		Winnemucca District	Paradise-Denio RMP	1979	July 1982	
	Oregon	Prineville District	Two Rivers RMP	1981	June 6, 1986	
		Prineville District	Brothers/LaPine RMP	1986	1989	
		Lakeview District	Warner Lakes MFP	1978	1982	
		Lakeview District	Upper Klamath Basin RMP	1993	December 1995	

*Most forest plans were started between 1979 and 1981

RMP = Resource Management Plan

MFP = Management Framework Plan

BLM /FS	State(s)	District or Forest	Plan name	Date started	Date completed	Date of last monitoring report
BLM						
	Oregon	Lakeview District	Klamath Falls RMP	1989	May 22, 1995	
		Lakeview District	High Desert MFP	1978	1982	
		Burns District	John Day RMP	1981	August 28, 1985	
		Burns District	Three Rivers RMP	1987	1992	
		Burns District	Andrews MFP	1979	1982	
	Oregon/Washington	Vale District	Baker RMP	1982	July 12, 1989	
		Vale District	Northern Malheur MFP	1978	1982	
		Vale District	Southern Malheur MFP	1979	1982	
	Utah	Salt Lake District	Box Elder RMP	1983	April 1986	
	Washington	Spokane District	Spokane RMP	1989	December 1992	
BLM	Wyoming	Rock Springs District	Kemmerer RMP	1983	April 1986	
		Rock Springs District	Pinedale RMP	1985	December 1988	
FS						
	Idaho	Boise NF	Boise Forest Plan	*	April 27, 1990	1993
		Salmon NF	Salmon Forest Plan	*	January 11, 1988	1996
		Payette NF	Payette Forest Plan	*	May 6, 1988	1996
BLM /FS	State(s)	District or Forest	Plan name	Date started	Date completed	Date of last monitoring report
FS						
	Idaho	Nez Percè NF	Nez Perce Forest Plan	*	October 8, 1987	1995
		Clearwater NF	Clearwater Forest Plan	*	September 23, 1987	1995

*Most forest plans were started between 1979 and 1981

RMP = Resource Management Plan

MFP = Management Framework Plan

		Challis NF	Challis Forest Plan	*	June 3, 1987	1996
	Idaho/Montana	Kootenai NF	Kootenai Forest Plan	*	September 1987	1996
		Idaho Panhandle NFs	Idaho Panhandle Forest Plan	*	September 17, 1987	1994
		Bitterroot NF	Bitterroot Forest Plan	*	September 30, 1987	1994
	Idaho/Utah	Sawtooth NF	Sawtooth Forest Plan	*	September 16, 1987	1991
	Idaho/Wyoming	Targhee NF	Targhee Forest Plan	*	October 4, 1985	1991
		Caribou NF	Caribou Forest Plan	*	September 27, 1985	1992
	Montana	Helena NF	Helena Forest Plan	*	May 28, 1986	1992
		Flathead NF	Flathead Forest Plan	*	January 22, 1986	1992
		Lolo NF	Lolo Forest Plan	*	April 8, 1986	1995
		Deerlodge NF	Deerlodge Forest Plan	*	Septmeber 23, 1987	1995
	Nevada	Humboldt NF	Humboldt Forest Plan	*	August 19, 1986	1991
	Oregon	Ochoco NF Crooked River N G	Ochoco Forest Plan	*	August 1, 1989	1995
		Winema NF	Winema Forest Plan	*	September 19, 1990	1995

*Most forest plans were started between 1979 and 1981

RMP = Resource Management Plan

MFP = Management Framework Plan

BLM /FS	State(s)	District or Forest	Plan name	Date started	Date completed	Date of last monitoring report
FS						
	Oregon	Mount Hood NF	Mount Hood Forest Plan	*	October 17, 1990	1995
		Malheur NF	Malheur Forest Plan	*	May 25, 1990	1995
		Deschutes NF	Deschutes Forest Plan	*	August 27, 1990	1995
		Deschutes NF	Newberry NVM Plan	*	August 1, 1994	1995
		Fremont NF	Fremont Forest Plan	*	May 12, 1989	1995
	Oregon/Idaho	Wallowa-Whitman	Wallowa-Whitman Forest Plan	*	April 23, 1990	1995
		Wallowa-Whitman	Hell's Canyon NRA Plan	*	1984	1995
	Oregon/Washington	Columbia River Gorge NSA	Columbia River Gorge NSA Plan	1986	February 1992	
		Umatilla NF	Umitilla Forest Plan	*	June 11, 1990	1995
	Washington	Okanogan NF	Okanogan Forest Plan	*	December 29, 1989	1995
		Gifford Pnichot NF	Gifford Pinchot Forest Plan	*	June 1, 1990	1995
		Colville NF	Colville Forest Plan	*	December 29, 1992	1995
		Wenatchee NF	Wenatchee Forest Plan	*	March 2, 1990	1995

NRA = National Recreation Area
NSA = National Scenic Area
NVM = National Volcanic Monument

*Most forest plans were started between 1979 and 1981
RMP = Resource Management Plan
MFP = Management Framework Plan

USDA, Forest Service

FOLLOW-UP QUESTIONS
from
Representative Sidney R. Yates
May 7, 1996
Interior and Related Agencies Subcommittee on Appropriations
Oversight Hearing for Fiscal year 1997 Appropriations

1. The final language regarding the Columbia Basin project in the FY 96 Omnibus bill prevents funds from being used to "implement regulation....that regulate the use of, or action occurring on, non-federal lands as a result of the draft or final environmental impact statements or records of decision for the Interior Columbia Basin Ecosystem management Project. Columbia Basin Ecosystem Management Project records of decision will not provide the legal authority for any new formal rulemaking by any Federal regulatory agency on the use of private property."

Has either the Forest Service or the Bureau of Land Management ever planned on using the Columbia Basin project to regulate private lands?

No

How will you be impacted by the provision in the Omnibus bill?

The Forest Service and the Bureau of Land Management intend to use information from the Interior Columbia River Basin Ecosystem Managemnt Project (ICBEMP) assessment in two Envrionmental Impact Statements (EIS's) that may result in amendments to 74 Forest Service and BLM land managment plans. These land management plans govern Federal lands under the jurisdiction of FS and BLM, and will not control uses on private lands.

2) Is it fair to say that developing and implementing an ecosystem-wide approach to managing the federal lands with the Interior Columbia Basin will ultimately help the timber industry?

I ask this because I'm under the impression that unless some sort of comprehensive management plan is implemented for the Columbia Basin, that adequately protects the region's dwindling fish resources, court injunctions could be issued that would dramatically reduce the level of timber harvesting in the area.

One of the goals of the environmental impact statements is to "provide sustainable and predictable levels of products and services within the capability of the ecosystem."

The agencies are currently working under Forest Plan amendments intended to be inplace for an interim period that may be replaced by this long-term strategy. These interim plan amendments were originally put in place in part to head off pending litigation that could slow or halt activities (not only the flow of commodities, but other activities as well) on public lands administered by the two agencies.

In 1994, the Government was successful in defending the Northwest Forest Plan from challenge. The court found that "Given the current condition of the forests, there is no way the agencies [Forest Service, Bureau of Land Management, Fish and Wildlife Service and National Park Service] could comply with environmental laws without planning on an ecosystem basis." This decision affirms the desirability to look at entire ecosystems and the cumulative affects across administrative boundaries to meet requirements of the National Environmental Policy Act in order to provide commodity uses in an environmentally safe manner.

3) If the Columbia Basin project, or some other ecosystem-wide approach, is not implemented, what will be the impact on endangered and threatened species in the region?

Conservation strategies would be developed for each species without regard to the effects on other species could result in management conflicts and inconsistencies, thereby increasing costs.

Could failure to implement the Columbia Basin project lead to new species being added to the Endangered Species List?

Yes, the project will provide better information on the needs of a variety of species in an integrated manner that may reduce or eliminate the need for additional listings.

4. Are the concerns of the timber industry being addressed in the development of the Columbia Basin project?

Yes, extensive and unprecedented public involvement and input efforts have been a part of the project since its inception. Representatives from state, local and tribal governments, timber, environmental, conservation, agriculture, and other special interests, as well as the general public, have been involved and provided input since the beginning. Several timber companies as well as forestry organizations have closely followed the project.

5. How much has each one of your agencies spent to date on the Columbia Basin Project?

At the end of FY 1996 the project, which includes the completion of the scientific assessment and two Draft Environmental Impact Statements will cost 30.7 million dollars.

Many of the other agencies cooperating in this effort are providing personnel and their associated salary cost, as well as contributing data for the Scientific Assessment, while other involved agencies are contributing personnel and data to the project in lieu of dollars.

The following table displays both the BLM's and the Forest Service's expenditures of the project. (See table 1.)

How much more is needed to complete the project?

The 1997 President's Budget includes $2.3 million for the Forest Service and the Bureau of Land Management. This will bring the total cost of the project to $33.0 million. The $2.3 million estimate was based on the following assumptions:

1) One final environmental impact statement would be written that would cover both the Interior and the Upper Columbia Basin.

2) One FEIS team housed in one office location.

3) Content Analysis for both DEIS's conducted in one location by one group of people.

4) Comment period would be 90 days.

Revised assumptions and future actions may increase project needs by an additional $1.5 to $1.7 million. These include:

1) Completion of separate environmental impact statements.

2) Extension of the comment period to 120 days.

3) Another unknown that could impact costs drastically is the intensity and magnitude of state, county, local and Tribal government comment, as well as public reaction. The Project has maintained an open process from inception and must continue to do so. Innovative processes such as interactive satellite down links, town hall meetings, employee briefings, and/or forums patterned after the American Forest Congress are envisioned.

Would you consider this money wasted if you were prevented from using the results of the Columbia Basin project?

The most efficient way to incorporate the new scientific information is to allow Final EISs and Records of Decision to simultaneously amend multiple forest plans and regional guidelines. Otherwise, individual plan amendments would take longer and cost more money.

The following table displays both the BLM's and the Forest Service's expenditures on the project.

Agency	FY 1994 ($000)	FY 1995 ($000)	FY 1996* ($000)	FY 1996** ($000)	Total ($000)
BLM	657	3,806	382	1,466	5,929
Forest Service	8,704	11,812	2,145	4,234	24,750
Total Project	9,361	15,618	2,527	5,700	30,679

* Expenditures in FY 1996 to date.

** Planned total expenditures for FY 1996.

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